



Federal Railroad  
Administration

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DEPT. OF TRANSPORTATION

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**April 14, 2000**

**TO: RSAC Members and Alternates**

**Apologies for the delay in this meeting notice. The next meeting of the full RSAC will be held on Friday, May 19, 2000. Although we make every effort to avoid scheduling meetings on a Friday, conventions and conferences scheduled for the month of May have made it difficult to secure a meeting facility and lodging accommodations. The meeting will be held at the Madison Hotel, 1177-15<sup>th</sup> Street, NW, Washington, DC 20005, 9:30 a.m. to 3:00 p.m. The Madison Hotel is next to the Wyndham Hotel where we usually meet.**

**I was unable to reserve lodging accommodations at any hotels near the meeting location. The Virginian Suites, 1500 Arlington Blvd, Arlington, VA 22209, Phone 703/522-9600 has rooms available. This hotel provides transportation to the Rosslyn Metro station which is three stops away from Vermont Avenue (McPherson Square) on the Orange/Blue Metro line. They are holding a block of rooms till May 1 at the government per diem rate of \$118 per night. When making reservations say you are with the Federal Railroad Administration group.**

**Enclosed is a revised Task Statement for Railroad Operating Practices - Blue Signal Protection for Workmen and a draft copy of the Minutes from the January 28 meeting. Please provide edits/comments to the Minutes to me by May 5.**

**Trish Paoella  
RSAC Coordinator  
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(202)493-6309 FAX**



U.S. Department  
of Transportation

Federal Railroad  
Administration

(Insert at Tab 13)

**Railroad Safety Advisory Committee**  
**Task Statement:**  
**Railroad Operating Practices - Blue Signal Protection of Workmen**

**Task No. : 2000-1**

**Date presented to the RSAC: January 28, 2000**

**Purpose:**

To promote the protection of persons who work on, under, or between rolling equipment and the safety of persons applying, removing or inspecting rear end marking devices.

**Description:**

To investigate available safety data and facts to determine whether there is a need to amend and, if so, to propose any appropriate amendments or revisions to title Subpart B of Part 218, and section 221.16 of Part 221, title 49, Code of Federal Regulations, including associated definitions and any other directly related matters. Provide advice to FRA concerning disposition of any issues that may arise during rulemaking, through issuance of a final rule.

**Issues requiring specific report:**

The committee should consider, and specifically report on, the following issues:

- (1) Inclusion of contractors (on and off railroad property);
- (2) Visibility of blue signal;
- (3) One person crew protection;
- (4) Locomotive servicing area;
- (5) Remote control derails; and radio activated switches
- (6) Inspection/placement/removal of Rear End Markers;
- (7) Utility employees;
- (8) Impacts of current rule and proposed changes on small entities; and
- (9) Feasibility of sunseting existing waivers in favor of permanent regulatory changes.

**Refer to:**

Blue Signal Working Group

**Target dates:**

5/15/2000      Report milestones and timetable for resolution of issues and preparation of proposed rule, as appropriate

**Disposition: Accepted**

**Date: 1/28/2000**

**DRAFT**  
**RAILROAD SAFETY ADVISORY COMMITTEE (RSAC)**

**Minutes of Meeting**  
**January 28, 2000**

The thirteenth meeting of the RSAC was convened at 9:35 a.m., in the Monticello West Ballroom of the Wyndham Hotel (Washington, D.C.), 1400 M Street, N.W., Washington, D.C. 20005, by the RSAC Chairperson, the Federal Railroad Administration's (FRA) Associate Administrator for Safety, George Gavalla.

As RSAC members, or their alternates, assembled, attendance was recorded by sign-in log. Sign-in logs for each daily meeting are a permanent part of the RSAC Docket. Nine of the forty-eight voting RSAC members were absent: The Association of Railway Museums (1 seat), The Brotherhood of Maintenance of Way Employees (1 of 2 seats absent), The Hotel Employees & Restaurant Employees International Union (1 seat), The International Association of Machinists and Aerospace Workers (1 seat), The International Brotherhood of Boilermakers and Blacksmiths (1 seat), Safe Travel America (1 seat), Sheet Metal Workers International Association (1 seat), and Transportation Communications International Union/Brotherhood of Railway Clerks (2 of 3 seats absent). One of four non-voting RSAC members were absent: Secretaria de Comunicaciones y Transporte (Mexico). Total meeting attendance, including presenters and support staff, was approximately 95.

Chairperson Gavalla welcomes RSAC Members and attendees. It was in April 1996 when FRA Administrator Molitoris first called this meeting to order. After nearly 4 years, much has been accomplished. Today, we will reflect on the partnership process. FRA could have put its rulemakings out without the benefit of the RSAC collaborative process. However, FRA believes more effective rules with greater compliance have emerged as a result of the RSAC process. Mr. Gavalla asks Patricia Paoletta (FRA Office of Safety) to present a safety briefing.

Ms. Paoletta describes available safety exits from the Monticello West Ballroom. She asks for volunteers with knowledge of cardiopulmonary resuscitation (CPR) to be designated to perform this lifesaving function, should the need arise. Roby Brown (Association of American Railroads (AAR)-Union Pacific Railroad Representative (UP)), Bob Keane (AAR- Illinois Central Railroad Representative (IC)), and Ray Lineweber (United Transportation Union (UTU)) volunteer to perform CPR.

Chairperson Gavalla invites FRA Administrator Jolene Molitoris to make introductory remarks.

Administrator Molitoris welcomes Members to a new century of RSAC. During the past seven years, we have witnessed an evolution in railroad safety that is unprecedented in

the history of this industry. For the past four years, it is hard to believe the contributions that RSAC has brought to this process. The results you achieve are continuing to ripple out—not just throughout North America, but throughout the world.

Last night, we all heard President Clinton say that the State-of-The-Union is the best in history. I can also say that this industry has a safety achievement record that is better than ever.

RSAC is part of a coalition of railroad partnerships. These include RSAC, the Safety Assurance and Compliance Program (SACP), and SOFA—Switching Operations Fatality Analysis.

Certainly one of our most revolutionary changes has been in our rulemaking process. It is hard to believe that RSAC is less than four years old, given that we have done so much through the collaborative rulemaking process. These include revised track safety standards, radio communications rules, locomotive engineer certification procedures and steam locomotive safety standards. Furthermore, passenger equipment standards, passenger train emergency preparedness, and roadway worker protection rules were all developed through heavy reliance on the collaborative process.

This past September, RSAC approved a landmark report, *Implementation of Positive Train Control Systems*, which points the way toward advances in collision avoidance, speed control and more secure protection of roadway workers. In addition, the North American Joint Positive Train Control (PTC) Project is well underway, and it must succeed if we are to realize the potential of the railroad industry in this new century.

SACP is an evolution that takes what you do at this table to the front line. We want to continue to train and emphasize to our employees that SACP can strengthen our ties to rail labor and management. This year I want to hold another roundtable forum to discuss how we can move this process forward.

Yesterday, I spoke before the North American Rail Alertness Partnership (NARAP). Within the Department of Transportation (DOT), the Secretary has identified fatigue countermeasures as a DOT Flagship Initiative. However, the rail industry is already leading the way for its employees and is serving as the model for the other transportation modes to follow. Your work can be analyzed and quantified. For example, since 1993, the employee fatalities have declined 40 percent. However, by the end of my remaining “Web Years”—that’s cyber language (i.e., a web year = 3 months)—I want that statistic to be below 50 percent. In addition, we have had a 9 percent reduction in the train accident rate, a 27 percent decline in highway-rail grade crossing collisions, accompanied by a 34 percent reduction in crossing fatalities and a 22 percent reduction in non-fatal crossing injuries, even as the exposure to this risk has increased.



RSAC Members have built bridges that are spanning the safety culture and other historic gaps between labor, management, industry and government. We have created forums for dialogue, and each of us has shown our willingness to listen. We want to keep moving. But the only way we can continue this momentum is to continue talking at the RSAC Table, the SACP Table, and the NARAP Table.

We have many important rulemakings still pending before RSAC. Last month the Standards Task Force of the PTC Working Group put together a series of tentative agreements that should permit consensus on proposed performance standards for processor-based signal and train control systems. We are also in the home stretch on proposed rules for locomotive crashworthiness. We have just completed a series of consultations on cab sanitation that should permit us to conclude a Notice of Proposed Rulemaking (NPRM) in the next few weeks, and the group is ready to return to cab noise exposure in the coming months. We expect this year to receive recommendations for proposed rules on next-generation locomotive event recorders and publish an NPRM. The Track Working Group is completing a proposed rule on Roadway Maintenance Machines and also prepared a final rule on use of the Gage Restraint Measurement System (GRMS).

Today, RSAC will be asked to consider a new task to revise and update regulations on Blue Signal Protection. In addition, we will ask you to consider a planning task regarding training and qualification of certain safety-critical personnel.

During the last decade of the 20<sup>th</sup> Century, we began to find new ways of achieving progress through partnerships. I thank each of you for your support: railroads, labor, the American Public Transit Association (APTA), and suppliers. But as we stand at the threshold of a new century, I ask for your continued commitment, courage, and hard work.

SOFA is a new way to get to zero. Yards and switching operations are the most deadly working environment for railroad workers. Most of the solutions to this problem is common sense, not high tech. We want to send people home whole. When I hear of rail workers being impaled between two cars, I am sad. I don't enjoy writing sympathy letters—they are so inadequate. It is also disheartening to me that every death or injury that has occurred during the last 7 years has occurred on my watch. Together, we can forge the safest, most efficient, productive and profitable transportation system that the people of this nation have ever seen. By continuing to work together in partnership, we can truly make the dream of zero deaths, zero injuries, and zero accidents a reality.

You are going to see two video presentations today. In my discussions with NARAP yesterday, FRA didn't tell our story very well. Perhaps it's because we are so eager to chase after the next safety hazard. In March, I am going to talk to the World Wide Rail Congress. I will be using these overhead video presentations that you will see today. However, I ask RSAC Members to send me one or two important ways of saving lives.

The World Wide Rail Congress wants to hear how we are pushing the casualty statistics down, while rail traffic is increasing.

Once again, the FRA Administrator thanks RSAC Members for attending today's meeting.

FRA shows a video presentation of the agency's safety assurance and compliance program (SACP). The reasons behind FRA's shift from site-specific inspections to comprehensive railroad safety audits is outlined. Safety statistics are shown to demonstrate the success of the SACP approach to railroad safety inspections. Copies of the composite viewgraphs used in the SACP video presentation are part of the materials that will be filed in the RSAC Docket and are not excerpted in detail in the RSAC Minutes.

Chairperson Gavalla asks RSAC attendees Walter Carlson, representing Transport Canada, and Jerry Fisher, representing the Federal Transit Administration (FTA) to stand and be recognized. Recently, FRA and FTA put out a joint policy statement on the use of light rail passenger equipment on main line track of the general railroad system. The comment period on the joint policy statement, FRA Docket No. FRA-1999-5685, Notice No. 3) has been extended to February 14, 2000 (64 *Federal Register* 58124).

Chairperson Gavalla announces that immediately following today's RSAC Meeting, there will be a briefing in the same room on the Train Horn NPRM. All RSAC Members and attendees are invited to attend this briefing.

Chairperson Gavalla makes a presentation on SACP's role in the *Evolution of Railroad Safety Culture*, using recent changes in railroad employee discipline policies as an example. Chairperson Gavalla uses a series of overhead viewgraphs. Copies of these materials are part of the RSAC Docket and are not excerpted in detail in the RSAC Minutes.

Traditionally, railroad industry safety culture has relied heavily upon employee discipline to establish accountability for rules violations. As a result of the partnerships forged during the SACP process, railroad employee discipline policies became a targeted area for improving safety. Using the SACP partnership approach, ways are being explored to develop, or improve new discipline policies at four major railroads—Burlington Northern Santa Fe (BNSF), Union Pacific (UP), CSX Transportation (CSXT), and Norfolk Southern (NS). The partnership approach gets all the stakeholders together to help arrive at solutions. As the process moved forward, there was general agreement that these efforts were the best way to develop discipline policies. Safe work practices and accountability are being incorporated in employee discipline policies, whereby coaching, counseling, training and peer review are being promoted for occasional minor rules infractions. This process is resulting in safety culture changes. The effective date for BNSF's employee performance policy was November 1, 1996. Similar policies were

instituted by CSXT on July 1, 1998, UP on October 1, 1998, and NS on January 1, 2000.

The common elements in the discipline policies of these four railroads are: (1) an emphasis on counseling, teaching, and education; (2) the agreement to a joint review by rail labor and management on the administration of discipline policies; and (3) provisions for progressive levels of discipline. Other related safety culture-related changes include: (1) elimination of supervisors accompanying employees into examination rooms during medical examinations; (2) elimination of medical cards; (3) how accidents, incidents, injuries, and occupational illnesses are reported. In addition, an employee "empowerment policy" is being instituted at BNSF and UP, and a managerial conduct policy is being instituted at UP.

### POLICY FOR EMPLOYEE DISCIPLINE FOR RULES VIOLATIONS

|                | <b>Burlington<br/>Northern Santa<br/>Fe</b>   | <b>CSX<br/>Transportation</b>  | <b>Union Pacific</b>   | <b>Norfolk<br/>Southern</b>   |
|----------------|---|--|--|---|
| Program Name   | <i>Policy for<br/>Employee<br/>Performance<br/>Accountability</i>   | <i>Individual<br/>Development &amp;<br/>Personal<br/>Accountability<br/>Policy</i>   | <i>Policy and<br/>Procedures for<br/>ensuring Rules<br/>Compliance</i>   | <i>System<br/>Teamwork and<br/>Responsibility<br/>Training (START)<br/>Program</i>  |
| Effective Date | 11-1-1996   | 7-1-1998   | 10-1-1998  | 1-1-2000  |
| Minor          | 1 <sup>st</sup> offense<br>within 3 years—<br>Letter of<br>Reprimand<br>2 <sup>nd</sup> offense<br>within 3 years—<br>10 day<br>suspension<br>3 <sup>rd</sup> offense<br>within 3 years—<br>20 day<br>suspension<br>4 <sup>th</sup> offense<br>within 3 years—<br>Dismissal | 1 <sup>st</sup> offense—<br>counseling<br>Repetitive Minor<br>Offenses—either<br>(a) referral to<br>incident review<br>committee; or<br>(b) apply terms<br>of collective<br>bargaining<br>agreements | Level 1<br>offense—Letter<br>of Reprimand<br>Level 2 offense—<br>1 day<br>suspension;<br>pay in<br>accordance with<br>guidelines<br>Level 3 offense—<br>5 day<br>suspension<br>without pay | 1 <sup>st</sup> two offenses<br>within 3 years,<br>no formal<br>discipline—<br>counseling,<br>training and<br>education<br>3 <sup>rd</sup> offense<br>within 3 years,<br>handled as<br>"Serious<br>Offense" |

|   |  |  |  |   |
|---|--|--|--|---|
| Serious—i.e., speeding, rules violations resulting in revocation of locomotive engineer certification, and safety or rules violations that result in property damage that meet or exceed FRA reporting threshold. | 1 <sup>st</sup> violation of Rule G, extended unauthorized absence, etc.—suspension for up to 1 year | 1 <sup>st</sup> offense—either (a) referral to incident review committee; or (b) apply terms of collective bargaining agreements<br>2 <sup>nd</sup> offense within 3 years—minimum 30 day suspension<br>3 <sup>rd</sup> offense within 3 years—dismissal | Level 4 offense—30 day suspension without pay<br><br>Level 4.5 offense—60 day suspension without pay | 1 <sup>st</sup> offense, no more than 30 day suspension, which is suspended<br>2 <sup>nd</sup> offense—no more than 30 day actual suspension<br>3 <sup>rd</sup> offense—dismissal |
| Major (Grievous) (called 2 <sup>nd</sup> level Serious for BNSF)—assault, theft, weapons, drug and alcohol rules violations   | Dismissal  | Dismissal  | Level 5 offense—permanent dismissal  | Dismissal   |

Mr. Gavalla cites examples of how the new discipline policies are impacting CSXT employees. For operating rule violations, long-term dismissals have been reduced. For other offenses, i.e., theft, dismissals have more than doubled. Mr. Gavalla commends CSXT as the only railroad of its size that has ever gone an entire year (i.e., 1999) without a single railroad employee fatality. He attributes this performance to the melding of corporate culture and safety which is reflected in the company's discipline policy. This, he exclaims, is what safety is all about.

James Stem (United Transportation Union (UTU) thanks Chairperson Gavalla for his presentation. He asks if copies of the overhead viewgraphs used in the presentation could be photocopied and distributed.

Chairperson Gavalla responds that copies of his overhead viewgraph presentation will be distributed to RSAC Members before the meeting adjourns.

Chairperson Gavalla announces the Morning Break.

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M O R N I N G   B R E A K (10:38 A.M. - 11:00 A.M.)

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Chairperson Gavalla reconvenes the meeting. Mr. Gavalla asks FRA Administrator Molitoris to introduce the Switching Operations Fatality Analysis (SOFA) presentation.

Administrator Molitoris recognizes members of the SOFA "working group." They are David Brickey (UTU), Raymond Holmes (Brotherhood of Locomotive Engineers (BLE)), David Skinner (Volpe National Transportation Systems Center), Sam Arrington (UTU—now retired), William Brader (AAR), Mike Copeland (FRA), Charles Dettmann (AAR), Joseph Gallant (FRA), Robert Harvey (BLE), George Last (BLE), Tom Perkoneski (BLE), Matthew Reilly (American Short Line and Regional Railroad Association (ASLRRA)), and John Smullen (UTU).

Administrator Molitoris also thanks the Norfolk Southern Railroad for being the first railroad to begin implementing the SOFA Report.

A video projector presentation is made. As the view graphs change, a narrative description is provided in succession by Charles Dettmann, Joseph Gallant, and John Smullen. Following a review of all train and engine service employee fatalities for a six year period beginning in 1992, FRA formed a team to conduct a detailed analysis of each fatality. The SOFA Team was asked to determine whether trends or patterns to the accidents could be found, to identify the "best practices" being used by railroads to avoid these accidents, and if possible, formulate recommendations for the entire industry based on the SOFA Team's analysis. The SOFA study contains five recommendations. The recommendations are: (1) Secure equipment before action is taken; (2) Communicate before action is taken; (3) Protect employees against moving equipment; (4) Discuss safety at the beginning of a job or when a project changes; and (5) Mentor less experienced employees to perform service safely.

The SOFA Report and recommendations are not a rulemaking. However, FRA hopes that the railroad industry will help put the recommendations into practice. Fatalities in yard accidents account for around 45 percent of rail employee fatalities. Copies of the view graph presentation are part of the RSAC Docket and are not excerpted in detail in the RSAC Minutes.

Administrator Molitoris appeals to the representatives of railroads—the AAR and ASLRRA to take the five recommendations of the SOFA Report and come up with an action plan on how the recommendations will be implemented. If FRA could eliminate rail yard switching fatalities from its accident statistics for the year 2000, it is an area where the agency could see real movement in its quest for zero accidents.

With no questions, Chairperson Gavalla asks the National Transportation Safety Board (NTSB) to make a presentation on Crew Resource Management. The presentation will

be made by the NTSB's Dr. Stephen Jenner and Terry Doyle, an FRA inspector on detail to the NTSB.

Using overhead view graphs, Dr. Jenner begins the presentation with background and historical information. Copies of the view graph presentation are part of the RSAC Docket and are not excerpted in detail in the RSAC Minutes.

Crew Resource Management (CRM) has its origins in the airline industry, dating from the late 1970s. Several airline accident illustrations were described. An accident analysis exploring human factors, as possible underlying causes of pilot error accidents for years 1968-76 was undertaken. As a result of this analysis, problems were uncovered with decision-making, leadership, pilot judgment, communications, and crew coordination.

CRM as it relates to the airline industry is the effective utilization of all available resources—hardware, software, and “peopleware”—to achieve safe, efficient flight operations.

CRM training became mandatory in aviation after March 19, 1998.

In the marine industry, CRM started being explored in the late 1980s. Several marine accident illustrations were described. An accident analysis exploring human factors, as possible underlying causes of ship captain error accidents for years 1973-76 was undertaken. As a result of this analysis, a large percentage of marine accidents were due to human error. That analysis concluded that the “human errors” were not detected and/or not communicated early enough.

The 1995 Amendments to the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers Convention require that the master and deck officers have a thorough understanding of bridge teamwork procedures.

Mr. Doyle continues the presentation. For the past three months, Mr. Doyle has been working with the NTSB on a rotational assignment. Even though the mandates of FRA and NTSB are different, both agencies have “safety” as the same common denominator.

CRM is a new concept in the railroad industry. To determine its applicability, FRA undertook a historical review of CRM in the airline industry. An excellent resource is *The Evolution of CRM Training in Aviation*, by Dr. Robert L. Helmreich, Professor of Psychology, University of Texas. As mentioned by Dr. Jenner, the 1<sup>st</sup> generation of CRM was actually “cockpit resource management” within the airline industry, with emphasis on changing individual behavior relative to (1) lack of assertiveness by juniors; and (2) authoritarian behavior by captains. In the 2<sup>nd</sup> generation of CRM, the concept became more modular and team-oriented in nature with focus on: team building, briefing strategies, situation awareness, and stress management. In the 3<sup>rd</sup>

generation of CRM, the scope was broadened to include technical training; focus on specific skills and behaviors that pilots could use to function more effectively; and coverage was also extended to other groups such as: flight attendants, dispatchers, and maintenance personnel. Finally, the 4<sup>th</sup> generation of CRM has a requirement for mandatory technical training in aviation, effective in 1998. Recapping the successes and failures of CRM through the first four generations indicate: CRM does not always reach everyone; not all of CRM's principles "move" from the classroom to the field; if not practiced and reinforced, the basis concepts of CRM fade over time; and CRM is an "error management" program. The term, "error management," means: the avoidance of errors; catching potential errors before they are committed; and mitigating the consequences of any errors which occur.

During the 1997 FRA Roundtable discussion on "intimidation and harassment," FRA explored ways to improve the following qualities in the railroad work environment: trust, dignity, and respect. This was the first step taken to bring about meaningful change within the railroad industry's safety culture. As a result of this Roundtable discussion, FRA established a railroad safety culture task force. Also, FRA has been addressing "intimidation and harassment" issues through SACP safety audits.

FRA acknowledges there are aspects of CRM that may be applicable to the railroad industry. At the same time, FRA recognizes the need to improve the "safety culture" within the rail industry to support the principles and objectives of CRM. FRA has been closely following the recent initiative on CSXT's non-punitive discipline policy. In addition, FRA's SOFA Working Group recognized the implications of CRM in the SOFA Report. FRA is incorporating CRM principles into its regulations. Examples include: the Operational Tests and Inspections Program (49 Code of Federal Regulation (CFR) Section 217.9), the Instruction on Operating Rules Program (49 CFR Section 217.11), the Qualification and Certification of Locomotive Engineers Program (49 CFR Section 240), and the Safety Training for Hazardous Materials Employees Program (49 CFR Section 172). These regulations focus on important technical training aspects involving railroad employees' abilities to perform tasks. However, FRA's regulations only partially address the topics of "situational awareness," "effective communication and teamwork," and "strategies for appropriately challenging and questioning authority."

Many railroads are going beyond the minimum standards established by regulations for CRM training. For example, CSXT, as well as other railroads, require a job briefing prior to each trip. The UP requires "Session B" training, which incorporates CRM principles. Finally, the NS has an extensive video library and requires train crews to view selected videos.

FRA believes that CRM has many benefits that may well improve railroad safety. However, these benefits are difficult to quantify. FRA also believes that CRM should be addressed through the RSAC process to fully evaluate the potential for developing and requiring its use. The use of CRM encourages the making of safe operational decisions, and provides support to those making the decisions afterwards. In

conclusion, FRA believes that no railroad employees should be placed in a position where they must choose between maintaining their employment versus compromising their safety.

Mr. Doyle asks for questions on the joint NTSB/FRA presentation.

Mr. Dettmann announces that the AAR, NS, UP, and Canadian Pacific (CP) are developing a generic CRM Program. The program will be available within the next 60 days. The program will allow customization at each individual railroad.

Mr. Doyle thanks Mr. Dettmann for this announcement.

With no further comments/questions, Chairperson Gavalla thanks Dr. Jenner and Mr. Doyle for their presentation. He acknowledges that there are many avenues with which to achieve CRM objectives. If FRA can help in any way, please let the agency know.

Chairperson Gavalla welcomes Dwight Foster, Deputy Director NTSB, to today's meeting. Also recognized are Tom Jacobi (UP) and Roby Brown (UP).

Chairperson Gavalla asks Grady C. Cothen, Jr., FRA Deputy Associate Administrator for Safety Standards and Program Development for a status report on RSAC Working Group activities.

Mr. Cothen explains that the Locomotive Cab Working Conditions Working Group, RSAC Task No. 97-2, has been focussing on sanitation issues. Task Statements, Working Group membership composition, and a brief synopsis of Working Group activities related to locomotive crashworthiness are part of the materials inserted at TAB 10 of Notebooks given to each RSAC member. These materials are part of the permanent RSAC Docket and are not excerpted in detail in the RSAC Minutes. Mr. Cothen explains that FRA is prepared to circulate a draft rule to the working group. Assuming the draft rule on locomotive cab sanitation is approved by the Working Group, FRA would like the Committee's assent to introduce a motion to permit the agency to send a mail ballot to the Full RSAC requesting approval of the draft rule.

A MOTION IS INTRODUCED THAT ONCE APPROVED BY THE WORKING GROUP, THE DRAFT RULE ON LOCOMOTIVE CAB SANITATION WILL BE SENT TO THE FULL RSAC MEMBERSHIP, REQUESTING APPROVAL BY MAIL BALLOT.

THE MOTION IS SECONDED AND APPROVED BY VOICE VOTE.

Mr. Cothen continues. The Working Group on Locomotive Crashworthiness, RSAC Task No. 97-1, has tentatively agreed on design criteria that will meet performance standards, subject to completion of the cost-benefit study. Task Statements, Working



Group membership composition, and prior synopses of Working Group activities are part of the materials inserted at TAB 10 of Notebooks given to each RSAC member. These materials are part of the permanent RSAC Docket and are not excerpted in detail in the RSAC Minutes. FRA will bring the Working Group's recommendations before RSAC at the next meeting.

On the topic of PTC, the rule under development is not just about PTC. It is about all processor-based signal and train control systems, including communications-based operating systems. RSAC tasks associated with PTC are Task No. 97-4, Positive Train Control (PTC) Systems Technologies, Definitions, and Capabilities, Task No. 97-5, Positive Train Control Systems Implementation Issues, and Task No. 97-6, PTC Standards. Materials related to these topics are inserted at Tab 15 of Notebooks given to each RSAC member. These materials are part of the permanent RSAC Docket and are not excerpted in detail in the RSAC Minutes. FRA and the Standards Task Force are working on integrating various reports and regulatory language into a final document. On the prospect that the Working Group's efforts will be completed in advance of the next Full RSAC meeting, FRA would request the Committee's approval to permit the agency to send a mail ballot to the Full RSAC requesting approval of the draft rule.

Mr. Harvey (BLE) asks if there will be adequate time between circulating the draft rule and the deadline for the vote for analysis of materials?

Mr. Gavalla responds that FRA will provide adequate time for analysis.

A MOTION IS INTRODUCED THAT ONCE APPROVED BY THE WORKING GROUP, THE DRAFT RULE ON PROCESSOR-BASED SIGNAL AND TRAIN CONTROL TECHNOLOGIES WILL BE SENT TO THE FULL RSAC MEMBERSHIP, REQUESTING APPROVAL BY MAIL BALLOT.

THE MOTION IS SECONDED AND APPROVED BY VOICE VOTE.

Mr. Cothen resumes. On the RSAC Task involving the Definition of Reportable "Train Accident," work continues on how railroads estimate railroad property damage and how to improve the consistency of reporting. Materials related to Task No. 97-7, Definition of Reportable "Train Accident" are inserted at TAB 14 of Notebooks given to each RSAC member. These materials are part of the permanent RSAC Docket and are not excerpted in detail in the RSAC Minutes.

On the RSAC Track Task, work on draft rules changes for roadway maintenance machines and the use of Gauge Restraint Measurement System (GRMS) technology is nearing completion. Materials related to these items are inserted at TAB 6 of materials given to each RSAC Member, under RSAC Task Number 96-2, Revisions to Track Safety Standards. These materials are part of the permanent RSAC Docket and are not excerpted in detail in the RSAC Minutes. Mr. Cothen requests the Committee's

approval to permit the agency to send a mail ballot to the Full RSAC requesting approval of the draft rule.

Mr. Dettmann notes that for administrative purposes, it would be helpful if the draft rule on roadway maintenance machines (once approved by the track working group) and rules for the use of gauge restraint measurement system technology were sent to the Full RSAC membership for approval by a single mail ballot.

Rick Inclima (BMW) seconds the motion.

Chairperson Gavalla asks if there could be a motion to combine the two issues into a single mail ballot?

Mr. Inclima moves that once approved by the track working group, the draft rule on roadway maintenance machines and draft rule for the use of gauge restraint measurement system technology will be combined onto a single ballot. The Full RSAC membership, will be requested to approve the draft rules by mail ballot.

Mr. Dettmann seconds the motion.

THE MOTION THAT ONCE THE PROPOSED RULE ON ROADWAY MAINTENANCE MACHINES AND FINAL RULE FOR THE USE OF GAUGE RESTRAINT MEASUREMENT SYSTEM TECHNOLOGY IS APPROVED BY THE WORKING GROUP, THEY WILL BE COMBINED ONTO A SINGLE BALLOT AND SENT TO THE FULL RSAC MEMBERSHIP, REQUESTING APPROVAL MAIL BALLOT IS CARRIED BY UNANIMOUS VOICE VOTE.

Following some housekeeping and administrative announcements, Chairperson Gavalla announces the Lunch Break at 12:10 p.m.

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LUNCH BREAK (12:10 P.M. - 1:15 P.M.)

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Chairperson Gavalla reconvenes the meeting. He introduces two people who are providing contract work on FRA's RSAC Internet Web Site. They are Masoud Deljoubar of Mori Associates (Bethesda, Maryland) and Mickey Grackin, McLean Research Corporation (Bethesda, Maryland).

Chairperson Gavalla asks Mr. Cothen to make remarks about the Northeast Corridor Safety Committee (NECSC).

Mr. Cothen explains that the Rail Safety Improvement Act of 1988 (Act) required the establishment of this committee. The NECSC has met a number of times and is a useful forum for labor and management to discuss various safety issues related to that

unique operating environment. The results of the Committee's work have been significant. For instance, Amtrak is currently implementing lessons from a study regarding the aerodynamic effects of high speed trains passing through stations. Pending legislation proposed by The Department of Transportation is proposing language in the Department's surface transportation safety bill which would stiffen penalties for railroad vandalism, based on initial ideas generated by the Committee. The Committee also served as a sounding board for development of the Advanced Civil Speed Enforcement System that Amtrak is currently deploying on the North End (although it was not formally involved in the proposed or final order requiring its use). While the committee has not met since 1996, FRA has met with individual operators within the Northeast Corridor.

FRA would like to continue this effort. However, there is "zero" funding allocated within the Department's Federal Advisory Committee funding ceiling for this group. FRA has the authority under the 1992 amendments to the Act to retire the NECSC. FRA would like to roll the functions of this committee into an RSAC Working Group. Due to the lateness of this proposal, FRA would like for RSAC Members to consider this proposal. Specifics will be presented and members will be asked to vote to continue NECSC functions as an RSAC function at the next full RSAC Meeting.

Mr. Inclima (BMW) asks if an NECSC group has already been designated and will this group simply be rolled over into RSAC?

Mr. Cothen responds "yes."

Fred Ohly (Amtrak) asks if there will be additional information?

Mr. Cothen responds that operators in the Northeast Corridor have System Safety Plans which the group will need to review to ascertain that they are well integrated.

Mr. Lineweber (UTU) asks if FRA wants a motion on this now?

Mr. Cothen replies no, just think about it now.

Fran Hooper (American Public Transit Association (APTA)) reacts that this proposal is very difficult to take to APTA members. She needs more information.

Mr. Ohly (Amtrak) adds that he would like the owners and operators to discuss this topic before it is put before RSAC.

Chairperson Gavalla responds that FRA will agree to discuss this topic with Northeast Corridor owners and operators before putting this topic before RSAC.

Mr. Cothen continues. RSAC must be re-chartered. This is a routine, administrative process. To proceed, FRA needs help from RSAC Members. FRA must provide a

current list of RSAC participants. In addition, new participants have expressed interest in joining. However, FRA feels that it would not want to expand the organization beyond 48 voting members.

FRA REQUESTS EACH RSAC ORGANIZATION TO IDENTIFY A CONTACT  
WITH WHOM RE-CHARTERING CAN BE DISCUSSED.

Chairperson Gavalla asks Thomas Keane (FRA Office of Safety) to present RSAC Task No.: 2000-1, *Railroad Operating Practices-Blue Signal Protection of Workmen*. Materials related to this topic are inserted at TAB 13 of Notebooks given to each RSAC member. These materials are part of the permanent RSAC Docket and are not excerpted in detail in the RSAC Minutes.

Mr. Keane explains that FRA has been briefing RSAC on this topic at a number of meetings. At the October 31, 1996, RSAC Meeting, Doug Taylor, (FRA's Office of Safety Operating Practices Division Staff Director), first presented a discussion on Blue Signal Issues. Blue Signal is one of the most important safety assurances for the railroad worker engaged in the inspection, testing, repair and servicing of rolling equipment. While FRA has developed minimum standards deemed essential for protection of these workers, there are areas of this regulation that need to be revisited. The task was to have been presented for vote at the September 8, 1999, Full RSAC meeting. However, the vote on this task was deferred until this meeting.

Reading from the proposed RSAC Task Statement, Task No.: 2000-1, *Railroad Operating Practices-Blue Signal Protection of Workmen*, the Working Group will review and propose any appropriate amendments or revisions to title Subpart B of Part 218, and Section 221.16 of Part 221, Title 49 CFR, including associated definitions and any other directly related matters. Provide advice to FRA concerning disposition of any issues that may arise during rulemaking, through issuance of a final rule.

If accepted by RSAC, FRA seeks the committee's advise on the following issues affecting blue signal protection of workmen: (1) Inclusion of contractors (on and off railroad property); (2) Visibility of blue signal; (3) One person crew protection; (4) Locomotive servicing area; (5) Remote control derails; and radio activated switches; (6) Inspection/placement/removal of Rear End Markers; (7) Utility employees; (8) Impacts of current rule and proposed changes on small entities; and (9) Feasibility of sunseting existing waivers in favor of permanent regulatory changes. After its initial meeting, the Working Group will be requested to provide a timetable for resolution of the issues and preparation of proposed rules changes, as appropriate.

Mr. Keane asks for questions.

Mr. Dettmann (AAR) objects to the Task Statement. He says the Task Statement predisposes that something needs to be done. He believes that the Task Statement

should include the following language: "Investigate available safety data to determine whether there is a need to propose any appropriate amendments to . . . ."

Chairperson Gavalla agrees that RSAC represents a fact-based process. FRA apologizes if the language predisposes that there should be rules changes. FRA has no problem in changing the language in the Task Statement.

Mr. Lineweber (UTU) is not certain that the data exists to make a determination on any of the proposed Task Statement issues. In addition, the reference to "utility employees" gives the impression that we are dealing with a 1-person crew.

Chairperson Gavalla asks if RSAC Members would prefer the use of the term, hostler or helper?

Mr. Lineweber (UTU) responds that probably will not help us. We need to look at the utility person without reference to a 1-person crew.

Chairperson Gavalla reminds the discussion that the issue is: Do we have adequate Blue Signal Protection. The task does not address whether 1-person crews are appropriate. If accepted by RSAC, the Working Group can sort through when is Blue Signal protection necessary, who should be required to use the protection, and why. FRA has not involved itself in issues of crew size and has no plans to do so.

Mr. Lineweber (UTU) requests a "Labor Conference" for 10 minutes.

With no objections, Chairperson Gavalla announces a 10 minute recess.

Chairperson Gavalla reconvenes the meeting.

Mr. Lineweber (UTU) ask Mr. Dettmann (AAR) or Pat Ameen (AAR) if the AAR has data for the proposed blue signal protection issues that will be investigated by the Working Group?

Mr. Ameen (AAR) responds that the AAR does not have data on all the topics.

Mr. Lineweber (UTU) asks if FRA has data for the proposed blue signal protection issues that will be investigated by the Working Group?

Chairperson Gavalla responds that an RSAC Working Group is not limited to the data found in FRA's data and file systems. FRA can seek out data on the issues to be examined. It is part of FRA's responsibilities to periodically review its programs and collect data during this process.

Mr. Lineweber (UTU) responds that the Task Statement for Blue Signal Protection needs to be re-drafted.

Chairperson Gavalla asks if the issue, "1-person crew," is inappropriate? If so, FRA can change that terminology in the Task Statement.

Mr. Lineweber (UTU) responds that FRA does not have jurisdiction over "1-person crews."

Chairperson Gavalla states that to move this topic forward, proposed changes in the Task Statement will be reflected in the RSAC Meeting Minutes.

Mr. Harvey (BLE) defines a utility worker, under these rules, as one who operates around moving rail equipment.

Mr. Cothen responds that currently, utility workers are "excepted," as long as they are associated with a crew. We wanted the RSAC Working Group to review whether there is a need to reverse this exception.

Gary Maslanka (Transport Workers Union of America (TWUA)) states that it will be difficult to examine the proposed issues without data. He continues, there is very little available data on these issues.

Chairperson Gavalla reminds members that there is a whole range of "data" and "facts" that can be examined beyond mere safety statistics.

Mr. Maslanka (TWUA) responds that he does not want a Task Statement where a Working Group is limited to available "data."

Mr. Dettmann (AAR) asks RSAC to look back at the SOFA study. The SOFA group had data that showed what some, but not all, workers were doing at the time of their accidents. Nevertheless, the SOFA group was able to reach consensus on "things," resulting in the report's recommendations. In the current task before RSAC, if the Working Group can not agree on certain topics, it can say so, and move on to issues upon which it can agree.

Mr. Reilly (ASLRRA) agrees with Mr. Dettmann. However, he asserts that the Task Statement does not show there is a "safety issue." If there is a problem, FRA should make that information available to us. Our "plate" is very full now.

Chairperson Gavalla reiterates that FRA is required to periodically review its regulations. Blue signal protections for workers is an ideal candidate for review under the RSAC umbrella. We have discussed assigning this task at past meetings. May I please have a motion that this task be accepted by RSAC using the revised Task Statement Description?

**A MOTION IS READ FOR RSAC TO ACCEPT TASK NO.: 2000-1, RAILROAD OPERATING PRACTICES-BLUE SIGNAL PROTECTION OF WORKMEN, TO**

INVESTIGATE AVAILABLE SAFETY DATA AND FACTS TO DETERMINE WHETHER THERE IS A NEED TO AMEND AND, IF SO, TO PROPOSE ANY APPROPRIATE AMENDMENTS OR REVISIONS TO TITLE SUBPART B OF PART 218, AND SECTION 221.16 OF PART 221, TITLE 49, CODE OF FEDERAL REGULATIONS, INCLUDING ASSOCIATED DEFINITIONS AND ANY OTHER DIRECTLY RELATED MATTERS. PROVIDE ADVICE TO FRA CONCERNING DISPOSITION OF ANY ISSUES THAT MAY ARISE DURING RULEMAKING, THROUGH ISSUANCE OF A FINAL RULE.

Mr. Lineweber (UTU) asks if the task will apply to Blue Signal Regulations only? He does not want UTU participation in this task to be viewed as concurring with the idea that single person crews are acceptable.

Chairperson Gavalla states that the record will reflect that the sole purpose and intent of this task statement is to revise the Blue Signal Regulations, and that any organization's participation in this task is without prejudice to that organization's position on the issue of single person crews.

Chairperson Gavalla requests that an RSAC Member enter the motion for consideration.

Mr. Lineweber (UTU) moves that RSAC accept Task No.: 2000-1, as read.

Mr. Maslanka (TWUA) seconds the motion.

THE MOTION FOR RSAC TO ACCEPT TASK NO.: 2000-1, *RAILROAD OPERATING PRACTICES-BLUE SIGNAL PROTECTION OF WORKMEN*, IS APPROVED BY VOICE VOTE.

Chairperson Gavalla thanks Vicky McCully (FRA RSAC Coordinator), Patricia Paoella (FRA Office of Safety), Luwan Jones (FRA Office of Safety student intern), and Cindy Gross (RSAC facilitator) for their efforts in arranging today's meeting.

Chairperson Gavalla introduces the next order of business. FRA would like RSAC to consider proposed Task No.: 2000-3, a "planning" task for the *Training and Qualifications of Safety-Critical Personnel*. If the planning task is accepted, FRA wants the Working Group of look at current training practices-what is out there now-and how the gaps should be filled. Materials related to this item are inserted at TAB 19 of materials given to each RSAC Member. These materials are part of the permanent RSAC Docket and are not excerpted in detail in the RSAC Minutes.

James Nelson (National Conference of Firemen & Oilers) asks what crafts will be involved?

Chairperson Gavalla responds that once the Task is accepted, FRA will ask any craft interested in joining the Working Group to come forward.

Mr. Harvey (BLE) notes on the second page of the task statement a reference to "qualification or certification requirements." To locomotive engineers, the term, "certification" is meaningful and has implications.

Chairperson Gavalla notes that this is a "planning" task. The Working Group will report back to the Full RSAC on whether this topic should move forward and how.

James Stem (UTU) believes, in light of the discussions here today, this task should be deferred to another time.

Mr. Harvey (BLE) agrees.

Mr. Dettmann agrees, saying this issue should wait until the next Full RSAC meeting.

Mr. Inclima (BMW) protests that action in this area should not be postponed because of organizations who are concerned by "certification." The "training" and "qualifications" issues are separate, but equally important.

Chairperson Gavalla observes that this issue needs further discussion. He tables consideration of Task No.: 2000-3 until the next Full RSAC meeting.

Mr. Dettmann (AAR) requests that any facts that FRA has as to why RSAC needs to address this issue should be given to members.

Chairperson Gavalla responds that there is a body of data. However, FRA will provide a snapshot of what is out there-NTSB data and others.

Ms. Hooper (APTA) asks that APTA and the passenger industry be included in the discussions and information dissemination on this topic.

Chairperson Gavalla concludes that this discussion will continue at the next Full RSAC meeting.

Chairperson Gavalla announces the Afternoon Break.

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A F T E R N O O N B R E A K (2:45 P.M. - 3:00 P.M.)

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Chairperson Gavalla reconvenes the meeting. Mr. Gavalla asks Lamar Allen (FRA Office of Safety) to make a presentation on changes to the Department of Transportation's (DOT) Drug and Alcohol Testing Procedures (49 CFR Part 40).



Tim DePaepe (Brotherhood of Railroad Signalmen (BRS)) requests confirmation that consideration of Training and Qualification of Safety-Critical Personnel has been tabled until the next Full RSAC meeting.

Chairperson Gavalla responds yes.

Mr. DePaepe continues that Dan Pickett (BLS), who is absent today will want to participate.

Chairperson Gavalla responds that FRA will want everyone to participate in this important safety area.

Using overhead viewgraphs and handouts, Mr. Allen explains that on December 8, 1999, DOT published an NPRM in the *Federal Register* (FR) (64 FR 69076), designed to strengthen and clarify standards and procedures required in the Departments Alcohol and Drug Program Regulations. Copies of the viewgraphs and handouts are part of the RSAC Docket and are not excerpted in detail in the RSAC Minutes.

The NPRM incorporates previous guidance and provides additional guidance for third party service providers which perform functions required in implementing Part 40. FRA is bringing the NPRM before RSAC so that Members can participate in the rule making process and offer suggestions to the FRA and to DOT. FRA will incorporate any appropriate suggestions it receives from RSAC Members with its own during the 120-day comment period of the NPRM (Docket due to close April 7, 2000).

Briefly, this is a DOT Rule. The testing procedures are the same for all transportation modes. FRA started its own drug and alcohol testing procedures in 1986. DOT used FRA's procedures as the basis for putting out the first set of Departmental rules in 1989. The proposed rule changes for Part 40 are a "How To." It is not Rail Industry policy which remains in Part 219. The proposed rules are written in "plain" English, having vocabulary at an 8<sup>th</sup> grade level. They are in the popular "question and answer" format. Finally, the regulation itself is orchestrated to follow the sequence of the process—the drug or alcohol testing procedures.

The NPRM addresses the following substantive issues. There are provisions for: (1) public interest exclusions—removing a service agent's authorization to preform a function governed by Part 40 for failure to follow Part 40 procedures; (2) stand down—presently, an employee cannot be taken out of a "covered" position pending a drug test verification decision by the Medical Review Officer (MRO). Under the NPRM, employees can be taken out of "covered" positions by the employer pending the final verification decision; (3) adulteration/split specimen testing—if a facility wants to do DOT testing work, it has to meet new adulteration testing standards; (4) fatal flaws/correctable flaws are clearly explained; (5) sending positive results to multiple employers is allowed; (6) blind specimen requirements are reduced; and (6) training requirements are increased.

Over the next 120-day period, DOT will conduct listening sessions/public hearings. These will be held at the Ronald Regan Building here in Washington, D.C. on March 20-21, 2000. Hearings will also be held in Los Angeles, California on March 28, 2000, and in Dallas, Texas on March 30, 2000. For additional information, please contact Marty Bloodsworth at the Transportation Safety Institute: (800) 862-4832, Ext. 323.

Thomas Leopold (AAR-Kansas City Southern) asks what Marty Bloodsworth could provide.

Mr. Allen responds hotel availability, costs, etc.

Mr. Allen continues. There are several NTSB Recommendations, issued January 13, 2000, regarding "Licit" Drug Use And Driving. For the railroad industry, the implication of this recommendation would mostly be centered on locomotive engineers. The NTSB has asked DOT to develop a program to educate, control the use and to post-accident test for these licit drugs. DOT will respond to the NTSB recommendation. Individual agencies will partner with the DOT and each other Operating Agency (OA) in developing the OA response.

Mr. Allen asks if there are any questions?

Mr. Inclima (BMW) inquires if the information that has been presented is in the *Federal Register*?

Mr. Allen responds yes, the *Federal Register* dated January 18, 1999.

Mr. Lineweber (UTU) asks if FRA could undertake any pilot studies on the issue?

Mr. Allen responds that FRA can not do any studies on "live" employee's specimens. FRA has offered-up its contract laboratory for future studies if DOT is interested.

Ms. Hooper (APTA) hopes that Mr. Dettmann (AAR) noted the size of the number of passenger transit employees versus railroad employees covered by these regulations, i.e., 214,00 versus 97,000.

Chairperson George Gavalla welcomes two additional attendees at today's meeting. They are the National Association of Regulatory Utility Commissioners' alternate member, Ira P. Baldwin, and former FRA Associate Administrator for Safety and RSAC Chairperson, Bruce Fine.

Chairperson Gavalla asks Christine Beyer, FRA Deputy Assistant Chief Counsel for Safety, to describe how Executive Order (E.O.) No. 13132, *Federalism* (64 *Federal Register* 153, Page 43255, dated 8-10-99) will affect FRA's rulemaking processes. A copy of the order and Ms. Beyer's talking points were included in materials given to

each RSAC Member. These materials are part of the RSAC Docket and are not excerpted in detail in the RSAC Minutes.

Ms. Beyer explains that E.O. No. 13132 was signed by President Clinton on August 4, 1999, and became effective on November 2, 1999. E.O. No. 13132 seeks to ensure that federal agencies will undertake meaningful and timely consultation with state and local governments if an agency's rules, legislation, and other policy statements or actions have federalism implications. Actions with federalism implications are those that have substantial direct efforts on states, the relationship between the states and federal government, or on the distribution of power among levels of government.

Due to the Railroad Safety Act of 1970, as amended, nearly all FRA safety rules preempt state rules on the same subject matter unless: (1) the state rule addresses a local safety hazard; (2) is not inconsistent with federal law; and (3) does not burden interstate commerce.

If FRA issues a rule with federalism implications, or preempts state law, E.O. No. 13132 requires FRA to: (1) consult with state officials; (2) prepare a "Federalism Summary Impact Statement" in the preamble of the rule; and (3) certify that E.O. 13132 requirements are met.

Typically, FRA will accomplish consultation through participation of the American Association of State Highway and Transportation Officials and the National Association of Regulatory Utility Commissioners in the RSAC process. Where FRA action has unique or profound state/local impact, FRA will do extensive outreach to affected governmental units.

Ms. Beyer asks if there are any questions.

With no questions of Ms. Beyer, Chairperson Gavalla continues with some housekeeping items. He asks RSAC members to suggest a date for the next full RSAC meeting. He suggests sometime in the month of May, perhaps the week of May 15-19, or the week of May 22-26.

Mr. Inclima (BMW) states that his organization will be holding meetings the week of May 15-19.

Mr. DePaepe (BRS) states that his organization will be holding meetings the week of May 22-26.

Mr. Inclima explains that May 15<sup>th</sup> might be a possibility, when he could attend.

With no mutually-agreeable date, Chairperson Gavalla explains that FRA will try to reserve a room for the meeting during the last two weeks in May and will advise members of the meeting date.

Chairperson Gavalla asks for a motion to accept the Minutes from the 12<sup>th</sup> RSAC Meeting.

MR. BALDWIN (NARUC) MOVES THAT THE MINUTES FROM THE 12<sup>TH</sup> RSAC MEETING BE APPROVED.

Mr. Mogan (AAR) seconds the motion.

BY UNANIMOUS VOICE VOTE, THE MINUTES OF THE 12<sup>TH</sup> RSAC MEETING ARE APPROVED.

Chairperson Gavalla again reminds attendees that immediately following today's RSAC Meeting, there will be a briefing in the same room on the Train Horn NPRM.

With no further business, Chairperson Gavalla adjourns the 13<sup>th</sup> RSAC Meeting at 3:35 p.m.

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MEETING ADJOURNED 3:35 P.M.

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*These minutes are not a verbatim transcript of the proceedings. Also, overhead view graphs and handout materials distributed during presentations by RSAC Working Group Members, FRA employees, and consultants, become part of the official record of these proceedings and are not excerpted in detail in the minutes.*

Respectively submitted by John F. Sneed, Secretary.

**Meeting of the Railroad Safety Advisory Committee**  
**May 19, 2000**  
*The Madison Hotel, 1177-15th Street, NW, Washington, DC*  
***Agenda***

|                           |  |  |
|---------------------------|--|--|
| 9:30 am                   | Meeting Convened   | <i>George A. Gavalla, Chairperson</i>    |
|                           | Opening Remarks  |  |
|                           | RSAC Rechartering - Diversity                                      |  |
| <b>10:30-10:45 BREAK</b>  |  |  |
| 10:45                     | RSAC Website   | <i>Masoud Deljoubar, Mori Associates</i> |
|                           | Working Group Activity -<br>Status Report                          | <i>Grady Cothen</i>                      |
|                           | Sanitation   | <i>Christine Beyer</i>                   |
| <b>12:00 - 1:00 LUNCH</b> |  |  |
|                           | Training and Qualification of<br>Safety-Critical Personnel         | <i>George Gavalla</i>                    |
|                           | SACP Update  |  |
|                           | PTC - Standards  | <i>William Goodman/David Matsuda</i>     |
| <b>2:30-2:45 BREAK</b>    |  |  |
| 2:45                      | Remote Control Locomotive<br>Technical Conference                  | <i>Joe Gallant</i>                       |
|                           | Recap and General Discussion<br>Planning-Scheduling-Administrative | <i>George Gavalla</i>                    |
| 3:30                      | <b>ADJOURN</b>   |  |

# Railroad Safety Advisory Committee Meeting (RSAC)

*Federal Railroad Administration*



May 19, 2000  
The Madison Hotel  
Washington, DC

Necessity and Foreign Air Carrier Permits were filed under Subpart Q of the Department of Transportation's Procedural Regulations (See 14 CFR 302.1701 et. seq.). The due date for Answers, Conforming Applications, or Motions to modify Scope are set forth below for each application. Following the Answer period DOT may process the application by expedited procedures. Such procedures may consist of the adoption of a show-cause order, a tentative order, or in appropriate cases a final order without further proceedings.

*Docket Number:* OST-2000-7141.

*Date Filed:* March 27, 2000.

*Due Date for Answers, Conforming Applications, or Motion to Modify Scope:* April 24, 2000.

*Description:* Application of Florida West International Airways, Inc. ("FWIA") pursuant to 49 U.S.C. Section 41102 and Part 201 and Subpart Q, requests issuance of a new certificate of public convenience and necessity, or an amendment to its existing international certificate, authorizing FWIA to engage in scheduled foreign air transportation of property and mail between any point or points in the United States, via intermediate points, in both directions, to a point or points in Colombia, and beyond Colombia to points, in the Western Hemisphere. FWIA also requests authority to integrate this certificate authority with all services FWIA is otherwise authorized to conduct pursuant to its exemption and certificate authority and consistent with applicable agreements between the U.S. and foreign countries.

*Docket Number:* OST-2000-7143.

*Date Filed:* March 27, 2000.

*Due Date for Answers, Conforming Applications, or Motion to Modify Scope:* April 17, 2000.

*Description:* Application of Continental Micronesia, Inc. pursuant to 49 U.S.C. Section 41102 and Subpart B, applies to renew its Segment 9 Saipan/Guam-Sapporo/Sendai, Japan) and Segment 13 (Honolulu-Tokyo, Japan) Route 171 certificate authority for a period of no less than five Years.

*Docket Number:* OST-2000-7152.

*Date Filed:* March 28, 2000.

*Due Date for Answers, Conforming Applications, or Motion to Modify Scope:* April 18, 2000.

*Description:* Application of Farwest Airlines, LLC ("Far-west") pursuant to 49 U.S.C. Section 41738 and Subpart B, requests authority to operate scheduled passenger service as a commuter air carrier.

*Docket Number:* OST-2000-7168.

*Date Filed:* March 31, 2000.

*Due Date for Answers, Conforming Applications, or Motion to Modify Scope:* April 21, 2000.

*Description:* Application of Tie Aviation, Inc. d/b/a Trans International Express ("Tie") pursuant to 49 U.S.C. Section 41102, Part 201 and Subpart Q, requests that the Department issue it a Certificate of Public Convenience and Necessity to authorize foreign charter air transportation of property and mail.

**Andrea M. Jenkins,**

*Federal Register Liaison.*

[FR Doc. 00-11158 Filed 5-3-00; 8:45 am]

**BILLING CODE 4910-62-P**

## DEPARTMENT OF TRANSPORTATION

### Federal Railroad Administration

[Docket No. RSAC-96-1, Notice No. 21]

#### Railroad Safety Advisory Committee; Notice of Meeting

**AGENCY:** Federal Railroad Administration (FRA), Department of Transportation (DOT).

**ACTION:** Notice of Railroad Safety Advisory Committee ("RSAC") meeting.

**SUMMARY:** FRA announces the next meeting of the RSAC, a Federal Advisory Committee that develops railroad safety regulations through a consensus process. The meeting will address a wide range of topics, including possible adoption of specific recommendations for regulatory action.

**DATES:** The meeting of the RSAC is scheduled to commence at 9:30 a.m. and conclude at 3:00 p.m. on Friday, May 19, 2000.

**ADDRESSES:** The meeting of the RSAC will be held at The Madison Hotel, 1177 Fifteenth Street NW, Washington, DC, (202) 862-1600. The meeting is open to the public on a first-come, first-served basis and is accessible to individuals with disabilities. Sign and oral interpretation can be made available if requested 10 calendar days before the meeting.

**FOR FURTHER INFORMATION CONTACT:** Trish Paolella, RSAC Coordinator, FRA, 1120 Vermont Avenue, NW, Stop 25, Washington, D.C. 20590, (202) 493-6212 or Grady Cothen, Deputy Associate Administrator for Safety Standards and Program Development, FRA, 1120 Vermont Avenue, NW, Stop 25, Washington, D.C. 20590, (202) 493-6302.

**SUPPLEMENTARY INFORMATION:** Pursuant to section 10(a)(2) of the Federal Advisory Committee Act (Pub. L. 92-463), FRA is giving notice of a meeting

of the Railroad Safety Advisory Committee ("RSAC"). The meeting is scheduled to begin at 9:30 a.m. and conclude at 3:00 p.m. on Friday, May 19, 2000. The meeting of the RSAC will be held at The Madison Hotel, 1177 Fifteenth Street NW, Washington, DC, (202) 862-1600. All times noted are Eastern Standard Time.

RSAC was established to provide advice and recommendations to the FRA on railroad safety matters. The Committee consists of 48 individual representatives, drawn from among 27 organizations representing various rail industry perspectives, and 2 associate non-voting representatives from the agencies with railroad safety regulatory responsibility in Canada and Mexico. Staff of the National Transportation Safety Board and Federal Transit Administration also participate in an advisory capacity.

The RSAC will be briefed on the current status of activities of RSAC working groups and task forces responsible for carrying out tasks the RSAC has accepted involving locomotive cab working conditions, positive train control, the definition of reportable "train accident", roadway maintenance equipment safety standards, and incorporation of a provision for gage restraint measurement within the Track Safety Standards.

An informational briefing concerning a technical conference about remote control locomotives will be presented.

Please refer to the notice published in the **Federal Register** on March 11, 1996 (61 FR 9740) for more information about the RSAC.

Issued in Washington, DC on May 1, 2000.

**George Gavalla,**

*Associate Administrator for Safety.*

[FR Doc. 00-11105 Filed 5-3-00; 8:45 am]

**BILLING CODE 4910-06-P**

## DEPARTMENT OF TRANSPORTATION

### National Highway Traffic Safety Administration

[Docket No. NHTSA-99-6632; Notice 2]

#### Ford Motor Company, Grant of Application for Decision of Inconsequential Noncompliance

Ford Motor Company (Ford) has determined that certain 2000 model year Ford Focus vehicles it produced are not in full compliance with 49 CFR 571.135, Federal Motor Vehicle Safety Standard (FMVSS) No. 135, "Light Vehicle Brake Systems," and has filed an appropriate report pursuant to 49 CFR part 573,

standards, e.g., weight, size and ergonomic considerations; (2) employee training, e.g., hands-on training considerations; (3) operating practices and procedures, including but not limited to standard operating procedures, safety rule modifications, and railroad operating plans; (4) test and inspection procedures, including but not limited to electric and magnetic field emissions; (5) security and reporting issues, including but not limited to recordkeeping and notification to FRA concerning all RCL accidents and incidents. FRA requests that interested parties share their views regarding the use of consistent and safe RCL operations. FRA encourages comments on all aspects of RCL use. A transcript of the technical conference will be taken and placed in the public docket of this proceeding.

#### Public Participation Procedures

Any person wishing to participate in the technical conference should notify the FRA Docket Clerk by mail or by e-mail by close of business on July 12, 2000. The notification of intent to participate should identify the organization, the person represents (if any), the names of all participants from that organization planning to participate, and a phone number at which the registrant can be reached. FRA reserves the right to limit active conference participation to those persons who have registered in advance.

(Authority: 49 U.S.C. 103, 20103-04, 20106-08, 20135 and 20701-03)

Issued in Washington, DC on May 9, 2000.

George Gavalla,

Associate Administrator for Safety.

[FR Doc. 00-12110 Filed 5-12-00; 8:45 am]

BILLING CODE 4910-06-P

## DEPARTMENT OF TRANSPORTATION

### Federal Railroad Administration

[Docket No. RSAC-96-1, Notice No. 20]

#### Railroad Safety Advisory Committee ("RSAC"); Working Group Activity Update

**AGENCY:** Federal Railroad Administration (FRA), Department of Transportation (DOT).

**ACTION:** Announcement of Railroad Safety Advisory Committee (RSAC) Working Group Activities.

**SUMMARY:** FRA is updating its announcement of RSAC's working group activities to reflect the current status of working group activities.

#### FOR FURTHER INFORMATION CONTACT:

Trish Paoella, RSAC Coordinator, FRA, 1120 Vermont Ave, N.W., Mailstop 25, Washington, D.C. 20590, (202) 493-6212 or Grady Cothen, Deputy Associate Administrator for Safety Standards Program Development, FRA, 1120 Vermont Ave, N.W., Mailstop 25, Washington, D.C. 20590, (202) 493-6302.

**SUPPLEMENTARY INFORMATION:** This notice serves to update FRA's last announcement of working group activities and status reports on December 17, 1999 (64 FR 70756). The thirteenth full Committee meeting was held January 28, 2000. The next meeting of the full Committee is scheduled for May 19, 2000 at the Madison Hotel in Washington, D.C.

Since its first meeting in April of 1996, the RSAC has accepted sixteen tasks. Status for each of the tasks is provided below:

**Task 96-1—Revising the Freight Power Brake Regulations.** This Task was formally withdrawn from the RSAC on June 24, 1997. FRA published an NPRM on September 9, 1998, reflective of what FRA had learned through the collaborative process. Two public hearings were conducted and a technical conference was held. The date for submission of written comments was extended to March 1, 1999. FRA is preparing a final rule. Contact: Thomas Hermann (202) 493-6036.

**Task 96-2—Reviewing and recommending revisions to the Track Safety Standards (49 CFR Part 213).** This task was accepted April 2, 1996, and a Working Group was established. Consensus was reached on recommended revisions and an NPRM incorporating these recommendations was published in the **Federal Register** on July 3, 1997, (62 FR 36138). The final rule was published in the **Federal Register** on June 22, 1998 (63 FR 33991). The effective date of the rule was September 21, 1998. A task force was established to address Cage Restraint Measurement System (GRMS) technology applicability to the Track Safety Standards. A GRMS amendment to the Track Safety Standards is being prepared for presentation to the RSAC. Contact: Al MacDowell (202) 493-6236.

**Task 96-3—Reviewing and recommending revisions to the Radio Standards and Procedures (49 CFR Part 220).** This Task was accepted on April 2, 1996, and a Working Group was established. Consensus was reached on recommended revisions and an NPRM incorporating these recommendations was published in the **Federal Register** on June 26, 1997 ( 62 FR 34544). The

final rule was published on September 4, 1998 (63 FR 47182), and was effective on January 2, 1999. Contact: Gene Cox (202) 493-6319.

**Task 96-4—Reviewing the appropriateness of the agency's current policy regarding the applicability of existing and proposed regulations to tourist, excursion, scenic, and historic railroads.** This Task was accepted on April 2, 1996, and a Working Group was established. The Working Group monitored the steam locomotive regulations task. Contact: Grady Cothen (202) 493-6302.

**Task 96-5—Reviewing and recommending revisions to Steam Locomotive Inspection Standards (49 CFR Part 230).** This Task was assigned to the Tourist and Historic Working Group on July 24, 1996. Consensus was reached and an NPRM was published on September 25, 1998 (63 FR 51404). A public hearing was held on February 4, 1999, and recommendations were developed in response to comments received. The final rule was published on November 17, 1999 (64 FR 62828). Contact: George Scerbo (202) 493-6349.

**Task 96-6—Reviewing and recommending revisions to miscellaneous aspects of the regulations addressing Locomotive Engineer Certification (49 CFR Part 240).** This Task was accepted on October 31, 1996, and a Working Group was established. Consensus was reached and an NPRM was published on September 22, 1998. The Working Group met to resolve issues presented in public comments. The RSAC recommended issuance of a final rule with the Working Group modifications. The final rule was published November 8, 1999 (64 FR 60966). Contact: John Conklin (202) 493-6318.

**Task 96-7—Developing On-Track Equipment Safety Standards.** This task was assigned to the existing Track Standards Working Group on October 31, 1996, and a Task Force was established. The Task Force is finalizing a proposed rule to present to the RSAC for consideration. Contact: Al MacDowell (202) 493-6236.

**Task 96-8—This Planning Task** evaluated the need for action responsive to recommendations contained in a report to Congress entitled, *Locomotive Crashworthiness & Working Conditions*. This Planning Task was accepted on October 31, 1996. A Planning Group was formed and reviewed the report, grouping issues into categories.

**Task 97-1—Developing crashworthiness specifications to promote the integrity of the locomotive cab in accidents resulting from collisions.** This Task was accepted on



June 24, 1997. A Task Force on engineering issues was established by the Working Group on Locomotive Crashworthiness to review collision history and design options and additional research was commissioned. The Working Group reviewed results of the research and is drafting standards for freight and passenger locomotives to present to the RSAC for consideration. Contact: Sean Mehrvazi (202) 493-6237.

*Task 97-2*—Evaluating the extent to which environmental, sanitary, and other working conditions in locomotive cabs affect the crew's health and the safe operation of locomotives, proposing standards where appropriate. This Task was accepted June 24, 1997. A draft sanitation NPRM is under review by the Working Group on Cab Working Conditions. Task forces on noise and temperature were formed to identify and address issues. The Noise Task Force is preparing draft recommendations for noise exposure requirements. Contact: Brenda Hattery (202) 493-6326.

*Task 97-3*—Developing event recorder data survivability standards. This Task was accepted on June 24, 1997. An Event Recorder Working Group and Task Force have been established and are actively meeting. A draft proposed rule is being reviewed. Contact: Edward English (202) 493-6321.

*Task 97-4 and Task 97-5*—Defining Positive Train Control (PTC) functionalities, describing available technologies, evaluating costs and benefits of potential systems, and considering implementation opportunities and challenges, including demonstration and deployment.

*Task 97-6*—Revising various regulations to address the safety implications of processor-based signal and train control technologies, including communications-based operating systems. These three tasks were accepted on September 30, 1997, and assigned to a single Working Group. A Data and Implementation Task Force, formed to address issues such as assessment of costs and benefits and technical readiness, completed a report on the future of PTC systems. The report was accepted as RSAC's Report to the Administrator at the September 8, 1999, meeting. The Standards Task Force, formed to develop PTC standards, is developing draft recommendations for performance-based standards for processor-based signal and train control standards for presentation to the RSAC. Contact: Grady Cothen (202) 493-6302.

*Task 97-7*—Determining damages qualifying an event as a reportable train accident. This Task was accepted on September 30, 1997. A working group

was formed to address this task and conducted their initial meeting February 8, 1999. Contact: Robert Finkelstein (202) 493-6280.

*Task 00-1*—Determining the need to amend regulations protecting persons who work on, under, or between rolling equipment and persons applying, removing or inspecting rear end marking devices. A working group is being formed. Contact: Tom Keane (202) 493-6234.

Please refer to the notice published in the **Federal Register** on March 11, 1996 (61 FR 9740) for more information about the RSAC.

Issued in Washington, D.C. on May 9, 2000.

**George Gavalla,**

*Associate Administrator for Safety.*

[FR Doc. 00-12111 Filed 5-12-00; 8:45 am]

**BILLING CODE 4910-06-P**

## DEPARTMENT OF TRANSPORTATION

### Federal Transit Administration

[FTA Docket No. FTA 00-7347]

#### Agency Information Collection Activity Under OMB Review

**AGENCY:** Federal Transit Administration, DOT.

**ACTION:** Notice of request for comments.

**SUMMARY:** In accordance with the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 *et seq.*), this notice announces that the Information Collection Request (ICR) abstracted below has been forwarded to the Office of Management and Budget (OMB) for extension of a currently approved collection. The ICR describes the nature of the information collection and its expected burden. The **Federal Register** Notice with a 60-day comment period soliciting comments on the following collection of information was published on February 11, 2000 [FR 65 pages 7096 and 7097].

**DATES:** Comments must be submitted before June 14, 2000. A comment to OMB is most effective if OMB receives it within 30 days of publication.

**FOR FURTHER INFORMATION CONTACT:** Sylvia L. Barney, Office of Administration, Office of Management Planning (202) 366-6680.

#### SUPPLEMENTARY INFORMATION:

*Title:* 49 U.S.C. 5312(a) Research, Development, Demonstration and Training Projects.

*Type of Request:* Extension of a currently approved collection.

*OMB Control Number:* 2132-0546.

*Abstract:* 49 U.S.C. Section 5312(a) authorizes the Secretary of

Transportation to make grants or contracts for research, development, and demonstration projects that will reduce urban transportation needs, improve mass transportation service, or help transportation service meet the total urban transportation needs at a minimum cost. In carrying out the provisions of this section, the Secretary is also authorized to request and receive appropriate information from any source.

The information collected is submitted as part of the application for grants and cooperative agreements and is used to determine eligibility of applicants. Collection of this information also provides documentation that the applicants and recipients are meeting program objectives and are complying with FTA Circular 6100.1B and other Federal requirements.

*Estimated Annual Burden Hours:* 13,940 hours.

**ADDRESSES:** Send comments to the Office of Information and Regulatory Affairs, Office of Management and Budget, 725-17th Street, NW, Washington, DC 20503, Attention: FTA Desk Officer.

*Comments Are Invited On:* Whether the proposed collection of information is necessary for the proper performance of the functions of the Department, including whether the information will have practical utility; the accuracy of the Department's estimate of the burden of the proposed information collection; ways to enhance the quality, utility and clarity of the information to be collected; and ways to minimize the burden of the collection of information on respondents, including the use of automated collection techniques or other forms of information technology.

Issued: May 10, 2000.

**Dorrie Y. Aldrich,**

*Associate Administrator for Administration.*

[FR Doc. 00-12161 Filed 5-12-00; 8:45 am]

**BILLING CODE 4910-57-P**

## DEPARTMENT OF TRANSPORTATION

### Surface Transportation Board

[STB Finance Docket No. 33872]

#### Alabama & Gulf Coast Railway LLC—Trackage Rights Exemption—The Burlington Northern and Santa Fe Railway Company

The Burlington Northern and Santa Fe Railway Company has agreed to grant overhead trackage rights to Alabama & Gulf Coast Railway LLC (AGR) of Monroeville, AL, between the end of

## ***RSAC MEMBERSHIP LIST***

**Association of State Rail Safety Managers (1 seat)**

**American Association of Private Railroad Car Owners (AARPCO)(1 seat)**

**American Association of State Highway & Transportation Officials (AASHTO)(1 seat)**

**American Public Transit Association (APTA)(2 seats)**

**American Short Line and Regional Railroad Association (ASLRRA)(3 seats)**

**American Train Dispatchers Department/BLE (ATDD/BLE)(1 seat)**

**Association of American Railroads (AAR)(12 seats)**

**Association of Railway Museums (ARM)(1 seat)**

**Brotherhood of Locomotive Engineers (BLE)(2 seats)**

**Brotherhood of Maintenance of Way Employees (BMWE)(2 seats)**

**Brotherhood of Railroad Signalmen (BRS)(2 seats)**

**High Speed Rail/Maglev Association (1 seat)**

**Hotel Employees & Restaurant Employees International Union (1 seat)**

**International Association of Machinists and Aerospace Workers (1 seat)**

**International Brotherhood of Boilermakers and Blacksmiths (1 seat)**

**International Brotherhood of Electrical Workers (IBEW)(1 seat)**

**National Association of Railroad Passengers (NARP)(1 seat)**

**National Conference of Firemen & Oilers (1 seat)**

**National Railroad Construction and Maintenance Association (1 seat)**

**National Railroad Passenger Corporation (Amtrak) (1 seat)**

**Railway Progress Institute (RPI)(1 seat)**

**Safe Travel America (1 seat)**

**Secretaria de Comunicaciones y Transporte (1 non-voting seat)**

**Sheet Metal Workers International Association (1 seat)**

**Tourist Railway Association Inc. (1 seat)**

**Transport Canada (1 non-voting seat)**

**Transport Workers Union of America (TWUA)(2 seats)**

**Transportation Communications International Union/BRC (TCIU/BRC)(3 seats)**

**United Transportation Union (UTU) (2 seats)**

**National Transportation Safety Board (NTSB) (non-voting/advisory)**

**Federal Transit Administration (FTA)(non-voting/advisory)**



U.S. Department  
of Transportation

Federal Railroad  
Administration

(Insert at Tab 19)

**Railroad Safety Advisory Committee**  
**Task Statement:**  
**Training and Qualification of Safety-Critical Personnel**  
***(Planning Task)***

**Task No. : 2000-3**

**Date presented to the RSAC: January 28, 2000**

**Purpose:**

To evaluate the adequacy of existing FRA and industry requirements and programs to train, qualify, and document the qualifications of employees and other personnel who perform safety-critical functions, recommending any additional actions that should be taken through the RSAC.

**Description:**

This is a planning task that requires examination of FRA regulations, existing industry programs, and safety data related to the knowledge, skills and abilities of persons who perform safety-critical functions concerning the safety of railroad operations. The fitness of those persons for duty and the discharge by those persons of safety-critical duties may also be considered.

For this purpose, "safety-critical" suggests the ability to have a direct impact on safety and is intended to be comparable to the class of persons performing functions covered by 49 CFR § 209.303 (e.g., persons subject to the Hours of Service Act, persons involved in track safety or equipment safety, and persons in places of responsibility over them). However, the planning group shall retain discretion to expand or refine these classifications.

For reasons of efficiency, the planning group is requested not to engage in detailed, substantive review of recently issued requirements that were based on notice and public comment, such as the revisions to 49 CFR Part 214, Subpart C (Roadway Worker Protection), 49 CFR Part 213 (Track Safety Standards), 49 CFR Part 240 (Qualification and Certification of Locomotive Engineers), 49 CFR Part 238 (Passenger Equipment Safety Standards), or 49 CFR Part 239 (Passenger Train Emergency Preparedness). (In addition, specific training requirements regarding Freight Power Brakes are the subject of a separate proceeding for which a final rule was nearing completion as this task statement

was considered.) However, the planning group should consider how any larger system of training or qualification might incorporate, or be dovetailed with, such existing or pending requirements.

**Issues requiring specific report:**

Determine whether safety data indicates any material deficiency in the training or qualification of safety-critical personnel, their fitness for duty, or their commitment to sound discharge of that duty, that warrants further action in which the FRA should participate, including....

- The personnel affected by any such deficiency (by safety-critical function(s));
- The nature of any such FRA participation (e.g., rulemaking, program development, leadership through Safety Assurance and Compliance Programs);
- Identification of other parties that have a stake in successful and proportional resolution of this issue; and
- The nature of the action apparently indicated (e.g., training requirements, formal qualification requirements, and/or certification requirements).

To the extent any such significant, unmet needs are identified for which regulatory action is recommended, the planning group may provide draft RSAC task statements for FRA review.

**Source:**

Request by the United Transportation Union that RSAC consider certification of train conductors.

Expressions of interest in evaluating training, qualification or certification requirements for other safety-critical employees.

**Refer to/establish following working group:**

Training and Qualification Planning Group

**Target dates:**

To be determined by the planning group and reported to the full Committee.

**Disposition:** Postponement of consideration.

**Date:** 1/28/2000

## NTSB Safety Recommendations Related to Training

### **Index**

1971 to April 2000

R71-47 Training and Efficiency Testing  
R76-29 Emergency Procedures  
R76-30 Emergency procedures for cab evacuation  
R77-05 Locomotive Engineers  
R79-40 Minimum standards for training of train crews  
R80-06 & 07 Railroad emergency response  
R81-53 Efficiency testing  
R85-51 Two crew member qualified on Locomotive  
R87-66 Selection Training of Dispatchers  
R95-21 Trailer on Flat Car  
R96-55 Steam Locomotives - Basic Responsibilities  
R96-58 Steam Locomotives - Certification of Operators  
R98-07 Formal Training for Retainer Settings  
R98-28 Dispatcher Selection and Training  
R99-2 Fatigue and Work Schedules  
R99-13 Crew Resource Management  
R00-002 Develop informational material for use of medications while on duty  
R00-003 Develop Educational material for use of medications while on duty

## **NTSB RECOMMENDATIONS RELATED TO TRAINING**

**1971- April 2000**

R71-047 NTSB recommended under the authority of the Railroad Safety Act of 1970, FRA establish a program to review current training procedures for employees on the railroad and on the basis of cooperation with the railroads and the Association of American railroads, expand and develop a comprehensive training program applicable to the various crafts, trades and personnel employed in several operational modes. Training should be subject to periodic review by the FRA and should assure by examination that those who complete the training are qualified to perform their duties with safety. Board believed Operating Rules were vague.

October 1974 FRA stated through a letter that "work is presently underway in developing guidelines of job skills and training procedures for all classes of railroad employees".

Recommendation from rear end collision on October 17, 1975, Penn Central Passenger train struck another Penn Central Passenger train. Injuring 25 persons.

R76-029 & R76-030 Recommendation from rear end collision on October 17, 1975, Penn Central Passenger train struck another Penn Central Passenger train. Injuring 25 persons.

R76-029 NTSB recommend FRA require carriers to train employees in emergency procedures to be used after an accident to establish priorities for emergency action and to conduct accident simulations to test the effectiveness of the program, inviting civic emergency personnel participation. The all three aspects of this recommendation have been specifically addressed in final rule for Passenger Train Emergency Preparedness, Title Code 49, Part 223 July 6, 1998.

(1) train employees in emergency procedures to be used after an accident; (2) establish priorities for emergency action; and (3) conduct accident simulations to test the effectiveness of the program.

R76-030 NTSB recommends FRA require railroads to include emergency procedures for cab evacuation in its training program for operating employees.

R77-005 NTSB recommends FRA require that locomotive engineers be instructed in the braking of trains for varied circumstances that May develop during trains operations.

Recommendations from accident involving the derailment of 39 cars on a UP freight train at Hastings, Neb on August 2, 1976. January 4, 1987 collision occurred at Chase, Maryland with Amtrak train and CR lite locomotive consist. This resulted in the final rule, Title 49 Code of Federal Regulations, Part 240, "Qualifications for Locomotive Engineers" effective September 17, 1991. The program established provides for (1) shall be implemented through review and approval of each railroads operator qualifications standards; (2) shall provide minimum training requirements; (3) shall require comprehensive knowledge of applicable railroad operating practices and operating rules.

R79-040 NTSB recommends that the FRA: promulgate regulations establishing minimum standards for the training of train crews in safe operations of trains and in emergency procedures. Recommendation was the result of collision that occurred on June 9, 1978 at Seabrook, Maryland. Northbound CR commuter train struck the rear of Amtrak injuring 160 passengers. FRA feels that Part 240 and Part 239 have satisfied this recommendation.

R80-006 and 007 NTSB investigated 10 accidents in the past 10 years. It identified shortcomings in railroad emergency response.

R81-053 NTSB recommends to FRA: amend 217.9 to require sufficient monitoring to insure that each operating employee is evaluated for compliance with operating rules on a regular basis. Investigation from collision 11/07/80, Conrail freight train struck head end of Amtrak 74 at Dobbs Ferry. 234 persons aboard, 75 passengers and 9 crewmembers were injured.

R85-051 NTSB recommends that FRA require there be at least two crewmembers on locomotives of Freight trains who are qualified to operate the locomotive, the second person to serve as the assistant to the person in charge. The NTSB reviewed major accidents from 1971 to 1985 and identified failure of the engineer to carry out their responsibilities for proper operation of the train.

R87-66 -recommended FRA study the selection process, training, duties and responsibility of train dispatchers to determine if workload is beyond normal stress levels and determine what selection and training standards are used for train dispatchers. It was recommended that FRA establish selection and training standards and workload limits for dispatchers. In the NTSB report relating to Devine, TX 6/25/98 the board stated FRA only partially met the intent of the this recommendation by conducting a study in 1995, to Congress, of the selection, training, duties and responsibilities of train dispatchers. The FRA found several shortcomings regarding training and testing. As a result of the study In 1998 the NTSB classified this recommendation as Closed - Unacceptable Action/Superseded.

Study was conducted in response to Rail Safety Improvement Act (Public Law 100-342)1988 amended section 202 of the Federal Railroad Safety of 1970.

Recommendation result of Amtrak derailment at Fall River, Wisconsin, October 9, 1986.

Devoe Report April 1974 - An Analysis of the Job of the Railroad Train Dispatcher  
Rail Safety Improvement Act 1988 (public Law 100-342) study completed in 1988 released in May 1990.

National Train Dispatcher Safety Assessment of July 1990  
Study 1995 to Congress

R95-21 concerning trailer on flat car (TOFC) and container on flat car (COFC) loading and securement safety.

May 16, 1994 Smithfield, North Carolina a trailer not completely secured on its flat car shifted off the car and struck an Amtrak Train. Amtrak Asst Engineer was killed and 11 Amtrak Passengers and crew were seriously injured. In September 1994 FRA did a Safety study, "Trailer on Flat Car (TOFC) and Container on Flat Car (COFC) Loading and Securement Safety Study". FRA researched accident/incidents relating to this for years 1983 to 1993 and audited 63 TOFC/COFC loading sites across the country. They found 108 accident/incidents with 60% caused by load securement, 30% lading or cargo, 10% other causes. FRA identified seven recommendations which included establishing a uniform minimum set of training requirements. FRA recommended the seven recommendations be resolved through partnership.

July 8, 1997 Crystal City VA a CSX intermodal train with a shifted container brushed a passing Amtrak Train resulting in minor injuries. FRA developed a four phase approach of training federal and state motive power and equipment and hazardous materials inspectors.

R96-55 & 58 were issued after the firebox crownsheet of Gettysburg Passenger Service Inc steam locomotive 1278 failed while pulling a six car excursion train near Gardners, Penn on June 16, 1995. The engineer and two fireman were severely burned.

R96-55 Steam Locomotives - Describe basic responsibilities and procedures for functions required by regulation, such as blowing down the water glass & washing the boiler. Effective Jan 2000, Part 230 Inspection and Maintenance Standards for Steam Locomotives described basic responsibilities and procedures for functions required by regulation. In addition Vole Center has produced a training video for steam locomotive operators for FRA relating to daily inspections.

R96-58 Steam Locomotives - Certification of Operators - Develop certification criteria and require that steam locomotive operators and maintenance personnel be periodically certified to operate and or maintain a steam locomotive.

Jan 7, 2000, final rule 49 CFR Part 230, "Inspection and Maintenance Standards for Steam Locomotives" became effective, while it did not require a certification program for steam locomotive operators and maintenance personnel, the final rule does address for the first time, the issue of qualifications required for individuals making repairs to steam locomotives.

R98-07 NTSB recommended formal training for retainer settings - "Require railroads to implement formal training on correct retainer setting and use procedures for train crew members who may set or use air brake retainer valves as a result of derailment of UP freight train near Kelso, CA on January 12, 1997. We reported to the Board in our initial response the Part 240 should be sufficient and that retainers were no longer used. The Board responded and stated that if retainers are no longer in use why have the railroads continued to maintain them. Since that time we have done a survey and found that retainers are still being utilized. NTSB's Recommendation is being considered in our revisions to the Power Brake Law.



R98-28 NTSB recommended Dispatcher selection and Training- "Develop and establish dispatcher selection and training standards, dispatcher trainer standards and workload limits for dispatchers by January 1, 2000".

Recommendation received as the result of head-on Collision of two UP freight trains at Devine, Texas on June 22, 1997. 4 fatalities and 2 injuries resulted from the collision. We advised the Board of the studies we have conducted and workshops with the railroads we have held. The Board maintains that dispatcher training standards were still a problem that needed to be resolved.

R99-2 NTSB recommended FRA establish within 2 years scientifically based hours of service regulations that set limits on hours of service, provide predictable work and rest schedules and consider circadian rhythms and human sleep and rest requirements. We initially responded to this recommendation stating that there were provisions in the "Federal Railroad Safety Enhancement Act of 1999" that would require railroad's to submit a fatigue management plan to the FRA that addresses some of the concerns in this recommendation. The recommendation was the result of the NTSB investigating several accidents that involved operator fatigue. The NTSB contends other modes have begun educational programs related to fatigue but the railroads have not.

R99-13 Recommendation was the result of collision of NS freight train and CR at Butler, Indiana. The conductor was killed and two other crew members were injured.

Recommendation- Develop and Require Crew Resource Management Training - "In cooperation with Class I railroads, the American Short Line and Regional Railroad Association, the Brotherhood of Locomotive Engineers, and the United Transportation Union, develop and require, for all crew members, crew resource management training that addresses, at a minimum:

crew member proficiency, situational awareness, effective communication/ teamwork and strategies for appropriately challenging and questioning authority". Further the Board issued The Board refers to studies and crew resource management programs found in the airline industry. We acknowledge these studies and in answer conduct an "Intimidation and Harassment Roundtable" in Washington D C on October 21, 1997 to address the many aspects of real and perceived intimidation and harassment of railroad employees and to discuss how the railroad industry safety culture can be improved. It is the FRA's position that employees should not be placed in the position that they must choose between maintaining their employment versus compromising their safety. FRA initiated the Switching Operations Fatalities Analysis (SOFA) Working Group a study for 76 employee fatalities that has the potential for a CRM training application.

R00-002 and R00-003 The NTSB investigated many accidents in all passenger transportation modes in which the use of a licit medication by a vehicle operator has been causal or contributory. This report involves not only the use of illegal drugs but over the counter and prescription medications.

R00-002 Develop and Publish Hazard Information - "Develop, then periodically publish, an easy to understand source of information for train operating crewmembers on the hazards of using specific medications when performing their duties."

R00-003 Educational Program for Medical Hazards - "Establish and implement an educational program targeting train operating crewmembers that, at a minimum, ensures that all crewmembers are aware of the source of information described in Safety Recommendation R-00-002 regarding the hazards of using specific medications when performing their duties. The office of the Secretary of Transportation has assembled representatives from each mode to discuss these recommendations and establish uniform criteria. FRA is working with the Office of Secretary of Transportation and each mode to achieve the intent of these recommendations.

May 8, 2000

Mrs. Jolene M. Molitoris, Administrator  
Federal Railroad Administration  
1120 Vermont Avenue, NW - MS-5  
Washington, DC 20590

RE: Training and Certification of Safety Critical Employees

Dear Jolene:

Current law and regulations define safety critical railroad employees as those employees covered by both hours of service and drug testing laws. These laws and regulations cover the members of our two unions. We think safety will be improved in our industry if standards for training and certification of these employees were developed.

Please consider this letter as a formal request to include on the agenda a discussion of training and certification of safety critical employees at our next full RSAC meeting. We would like to have the RSAC accept this task and create a working group to formulate training and certification standards for these identified employees.

The RSAC has considered and discussed the certification process on more than one occasion, but has not come to a consensus on the focus and scope of training and certification for safety critical railroad employees. The US Congress has focused attention on safety critical employees in our industry by inclusion in hours of service and federal drug testing laws.

We appreciate your past support for training standards.

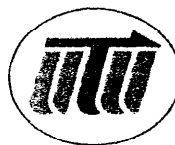
Sincerely yours,



W. Dan Pickett  
President - Brotherhood  
of Railroad Signalmen



Charles L. Little  
President - United  
Transportation Union



cc: ✓ G. A. Gavalla  
C. E. Dettman, AAR  
F. R. Hooper, APTA



U.S. Department  
of Transportation

Federal Railroad  
Administration

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# **THE SAFETY ASSURANCE AND COMPLIANCE PROGRAM (SACP)**

## **ACCOMPLISHMENTS FOR 1999 AND FIRST QUARTER 2000**

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**FEDERAL RAILROAD ADMINISTRATION  
SAFETY ASSURANCE AND COMPLIANCE PROGRAM  
ACCOMPLISHMENTS FOR 1999 AND FIRST QUARTER 2000**

**I. The Report**

**Background**

The Federal Railroad Administration (FRA) ensures the safety of the Nation's railroad industry through the promulgation of safety regulations and on-site monitoring of railroad operations. FRA directs 370 Federal inspectors and 150 State inspectors who oversee more than 675 railroads with more than 220,000 employees, 200,000 miles of track with 257,716 highway-rail grade crossings, 1.3 million freight cars, 20,000 freight locomotives and 8,880 passenger locomotives, coaches and self-powered coaches. In addition, there are more than 100,000 railroad bridges which need to be evaluated and inspected. The rapid growth of new railroads and traffic gains in recent years has increased demands on monitoring railroad industry compliance with safety regulations covering track, equipment, signals, transportation of hazardous materials, and operating practices. Because of the limited number of Federal and State inspectors, the efficient uses of these resources are critical.

The Agency traditionally relied upon site-specific inspections that focused on regulatory compliance as the primary means of safety oversight. While railroad safety had improved steadily since 1978, FRA was frustrated by the slow pace of progress. In addition, rail traffic has grown more than 50 percent since 1986. This dramatic increase significantly taxed FRA's resources and slowed the pace of safety improvements. In 1994, FRA responded to President Clinton's directive to "reinvent government" by developing a new approach to safety oversight, known as the Safety Assurance and Compliance Program (SACP).

SACP is radically innovative because it brings a systems-analysis approach to safety oversight, provides a vehicle for the Agency to address safety issues outside the realm of regulation, and reduces the adversarial relationship that often exists between the regulator and the regulated community. Through SACP, railroad labor and management have engaged in collaborative partnerships with FRA to help identify and solve problems related to rail safety.

The initial SACP used a team of FRA field and headquarters safety specialists, under direction of a project manager, to conduct coordinated safety assessments of an entire railroad's operations. This included an analysis of all accident and inspection data over a five-year period to determine historic trends and large-scale site inspections in all railroad disciplines to gain a first hand look at current conditions. Also, "listening sessions" were held with railroad employees, union representatives, supervisors and managers—those most intimately involved in railroad safety to learn about their safety concerns. To foster cooperation, FRA exercised enforcement discretion regarding safety violations that are voluntarily disclosed through this process. From the information gathered, the FRA team identified systemic safety problems, which may include issues that are not subject to Federal safety regulations, and made recommendations to address root causes of the problems. FRA's findings and recommendations were presented to rail management and rail labor leaders in "Senior Management Meetings" to ensure that safety problems were brought to the attention of the company's decision makers. The railroad developed a Safety Action Plan (SAP), usually in conjunction with labor and FRA, that provided detailed corrective actions and a schedule for implementation. The FRA team monitored the implementation of the SAP and its effectiveness in solving problems.

## **SACP - Evolutionary Process**

Since its inception, the SACP has undergone an evolutionary process. As previously discussed, when first initiated, FRA envisioned only one type of SACP examination: the audit model. Actual use of the SACP in a variety of different environments and management cultures for several years provided valuable insights which enabled FRA to identify the most positive aspects of the program. FRA saw what worked well and what needed improvement. For example, the identification and correction of root causes that involved employee fatigue management (a major safety concern) and internal process changes on the largest railroads did not lend it to an audit-type project.

This experience and innovative leadership by FRA, State partners, railroad management and labor organizations resulted in gradual shifts and changes in application of SACP. The cumulative effect was to significantly add to the depth of SACP and to the adoption of “best practices” options for correction of safety issues and program processes. The experience also helped to identify areas where changes were needed to improve the overall effectiveness of SACP.

Recent “FRA Customer” surveys have shown overwhelming support for SACP. Rail labor and management agree on the safety improvement benefits of the program. The customer surveys indicate general agreement that the original “audit model” process outlined in FRA’s October 1996 report to Congress on SACP remains valid in principle and practice primarily for small railroads or specific facilities. However, a different kind of SACP review—the ongoing partnership—has become the norm for the larger railroads.

As shown in the cross cutting matrix of key SACP issues and accomplishments that follows, all SACP projects are not alike. FRA is working in partnership with rail labor and management to institutionalize the best existing practices and to continue to make improvements to increase effectiveness.

### **Systems Approach - Rectifying the Root Cause**

SACP has resulted in more efficient mitigation of safety problems. For example, by using the “systems” approach to safety, a malfunctioning train signal at a specific location was traced to a software design error in the central dispatching system. In identifying and rectifying the root cause of the problem, SACP corrected potential signal problems at 400 other locations throughout the system.

### **Benefit of Partnership - When FRA Lacks Regulatory Authority**

By fostering collaborative partnerships, FRA has gained the cooperation of rail labor and management in addressing safety-critical issues in areas where the Agency lacks regulatory authority. For example, a SACP investigation of a series of highway-rail grade crossing signal failures revealed inadequate training of the signal maintenance forces as the root cause. Despite the lack of regulations, mandating signal maintenance employee training, SACP participation persuaded the railroad to develop a training course for more than 140 signal employees. The result was a 60 percent decline in crossing-signal failures.

### **Partnership Success Story - Switching Operations Fatality Analysis Task Force (SOFA)**

To eliminate train and engine service employee fatalities, FRA and 13 representatives from rail labor and management (the SOFA Task Force) conducted a detailed fact-finding review and

analysis of 72 train and engine service employee fatalities that occurred between 1992 and 1998, to determine whether trends or patterns could be found, to identify best practices, and, if possible, formulate recommendations for the entire industry based on the findings.

The SOFA Task Force published their findings in October 1999. Through the SACP process, each railroad is implementing the recommendations that benefit their safety program. The SOFA report provided specific recommendations which will improve protection for employees adjusting draw bars or installing an end-of train device and for employees who were being injured by equipment from other trains on adjacent tracks; improve crew communication; and improve training of less experienced employees. Possible contributing factors were evaluated and database improvements were suggested to provide a broader range of information on contributing factors and to produce more uniform data for analysis.

### **First-Ever Partnership on a Class I Railroad to Assess Maintenance-of-Way Staffing Levels**

Representatives from CSX Transportation Incorporated (CSXT), the Brotherhood of Maintenance of Way Employees (BMWV), State track inspection forces, and FRA participated in the first-ever partnership initiative on a Class I railroad to assess maintenance-of-way staffing levels. Comprehensive track and bridge inspections were conducted on the Chesapeake and Ohio Business Unit in the States of Kentucky, Ohio, Virginia and West Virginia. The inspections encompassed 1,775 miles of main track, 225 miles of sidings and 173 miles of yard track. FRA and State track inspectors also conducted walking inspections of 1,122 mail line turnouts and 533 yard turnouts. A total of 13,594 records was reviewed. Listening sessions were conducted with 330 CSXT employees and first-line supervisors who are responsible for maintaining track structures and bridges at 16 different locations across the four state area.

FRA track inspectors evaluated system-wide data on CSXT staffing levels and track component replacement levels, coupled with site-specific track inspections, to determine if there were systemic or localized problems that needed correction. On July 21, 1999, FRA requested that CSXT submit a formal SACP Action Plan to address the problems in the areas of: maintenance-of-way manpower levels, replacement of rail, ties, and ballast, and track surface renewal. CSXT responded with a written SAP to address FRA's findings.

In January 2000, FRA conducted listening sessions and follow up audits and found that the track conditions had deteriorated to the point of not complying with the track standards. Also, numerous roadway worker protection problems were identified as well as a lack of regular mechanized gang cycle frequencies necessary to adequately maintain track segments. These draft findings were presented to CSXT in March 2000. On April 11, 2000, CSXT announced several senior management changes and committed to operating a fundamentally different railroad. FRA will be actively monitoring CSXT's adherence to the Compliance Agreement signed by FRA's Administrator, Jolene M. Molitoris and CSXT's Chairman John Snow on April 20, 2000.

### **SACP Success Story: Region 3**

As part of Region 3's efforts to reduce the number of accidents, injuries and hazardous materials incidents, a data analysis of all major terminal operations within Region 3 was undertaken. The data was reviewed for the period January 1, 1998, through March 31, 1999. Analysis of the resultant data indicated that the terminal operations in Memphis, TN, had the highest number (32) accidents/incidents reported during the covered time period.



The study entailed a comprehensive safety review of all railroad operations within the Memphis Terminal from March 1 through July 31, 1999. The railroads encompassed by this safety review were the Burlington Northern Santa Fe Railway (BNSF), Canadian National Illinois Central (CNIC), CSXT, Norfolk Southern Corporation (NS), Union Pacific Railroad (UP), National Railroad Passenger Corporation (Amtrak) and the Memphis Area Transit Authority (MATA).

In reviewing the Memphis Terminal operations, the Region utilized a multi-discipline team inspection strategy based on the SACP model. The individual railroads in the Memphis Terminal were evaluated to determine compliance with the requirements of FRA regulations. FRA inspection teams actively involved railroad labor and management in this review.

During the last week in November, Region 3 management met with Memphis area rail labor leaders and terminal managers of each of the Class I railroads involved in the review. Attention was focused on FRA's industry-wide safety initiative to reduce human-factor-caused accidents. The findings of the SOFA Task Force was also presented. The meetings were successful and resulted in the development of genuine partnerships and action plans for reducing human-factor caused accidents. The review identified problems on each of the properties. These have either been corrected, or are in the process of being corrected.

### **Shortline Success Story**

As part of the SACP project in the South Florida Rail Corridor, Region 3 facilitated the parties coming together to address trespasser and crossing safety issues. FRA was able to focus attention that trespassing was a universal problem and that the carriers should work together to develop a unified approach. This led to a joint effort with the City of Miami to address trespassing on the Florida East Coast Railway (FEC) in the Liberty City section of the city. FRA worked with FEC, Amtrak, Tri-Rail, and city agencies to develop an educational fair that included a railroad locomotive that was open for tours. The FEC railroad security reports that since the partnership effort with the Liberty City community, incidents of vandalism and trespassing incidents have been significantly reduced.

### **Success Story: Houston Terminal Safety Action Plan**

An ongoing SAP at the Houston Terminal has reduced a very high track-caused derailment rate of 50 or more per month in 1997 to two or three minor incidents per month in 1999.

### **Success Story: Montana Rail Link (MRL)**

Region 8 management worked directly with the President and Vice Presidents of MRL to address crucial safety and cultural issues. As a result, MRL's safety record improved from 13 injuries per 200,000 man hours at its start-up in 1987, to 1.5 in 1998. MRL was subsequently recognized nationally when awarded the annual Harriman Bronze Medal Award for Safety.

### **SACP Benefit - Direct Investments in Safety**

SACP has also enabled FRA to persuade the rail industry to make direct investments in safety. For example, one commuter railroad invested an additional \$8 million in maintenance and training. The UP hired more than 5,800 railroad workers in 1998, more than 1,400 in 1999 and plans to hire more than 1,300 in 2,000, in response to SACP findings that it was significantly understaffed.

### **Best Measure of Effectiveness - Railroad Safety Performance**

Under SACP, the last six years have been the safest in the railroad industry's history. The data below compares the rail industry safety improvements for 1993, the final year for which site-specific only inspections occurred, and 1999.

|  | <u>1993</u> | <u>1999 *</u> | <b>Percent<br/>Improvement<br/>1993-1999</b> |
|--|-------------|---------------|--|
| Train Accident Rate                                  | 4.25        | 3.74          | 12.0 %                                       |
| Rail-Related Fatalities                              | 1,279       | 915           | 28.5   |
| Rail Employee Fatalities,<br>Injuries, and Illnesses | 15,363      | 8,420         | 45.2   |
| Grade Crossing Fatalities                            | 626         | 402           | 35.8   |
| Trespasser Fatalities                                | 523         | 474           | 9.4  |
| Employee Fatalities                                  | 47          | 31            | 34.0   |

\* 1999 is preliminary as of April 26, 2000.

### **Class I Railroads**

#### **Percentage Change from 1996 to 1999**

- NS total accidents and incidents fatalities decreased 4 percent and trespasser fatalities fell 18 percent.
- UP total accidents and incidents fatalities decreased 4 percent and grade crossing incidents dropped 27 percent. FRA representatives met with UP rail labor and management 348 times in 1998 and 264 times in 1999, to conduct SACP forums and 550 SACP safety committees are addressing safety and health issues, participating in safety audits and training, and communicating safety awareness information.
- CSXT employee fatalities decreased 100 percent. For the first time in over a decade, CSXT did not have an employee fatality in 1999. A total of 51 fatalities had occurred in the prior ten years.
- BNSF total accidents and incidents fatalities decreased 25 percent, and grade crossing incidents fell 17 percent.
- Amtrak total accidents and incidents decreased 12 percent, and train accidents fell 10 percent.

In Fiscal Year 1999, approximately 30 percent of FRA's Office of Safety resources was directed toward SACP activities. The following is a matrix of major accomplishments for year 1999 and 1<sup>st</sup> Quarter 2000.

## II. FRA MATRIX of Year 1999 and 1<sup>st</sup> Quarter 2000 Accomplishments

| Cultural Transformation Highlights - Pages 11 - 15  |  |   |  |   |   |  |
|---|--|---|--|---|---|--|
| NS  | BNSF   | UP  | CSXT   | AMTRAK  | KCS   | IC   |
| Page 11   | Page 12  | Page 12   | Page 13  | Page 13   | Page 14   | Page 14  |
| On May 10, issued a joint General Safety Bulletin to all employees specifying what is expected of company officers to ensure that employees injured on the job received prompt medical care. Goal is to eliminate harassment and intimidation.  | BNSF is implementing the 5 year strategic plan approved on July 23, 1999. The plan establishes a process for referral of safety issues to the systems group and resolved 40 outstanding safety issues. | The culture working group developed safety accountability performance standards for managers which holds managers accountable for rules, actions of noncompliance, and improper administration of discipline matters.             | CSXT's new Individual Development and Personal Accountability Policy continues to be the cornerstone for cultural transformation. Employee suspensions and disciplines continue to be very low in comparison to statistics prior to implementation. Most cases requiring discipline involve alcohol and drug test positive results and operating rules 240 violations (Locomotive Employee Certification). | FRA is partnering with Amtrak labor and management to improve the safety culture through the consolidation of 8 outdated Amtrak safety rule books into one book. FRA envisions that the new rule book will initiate fundamental changes in the culture. | Successful partnerships involving the car inspector's craft, dispatchers and signal personnel, at both a system and local level were formed and complaints dropped significantly. | The FRA conducted numerous listening sessions throughout IC. The IC Chief Executive Officer traveled through out the IC holding breakfast and lunch meetings in an effort to resolve some of the perceived problems.<br><br>Senior managers were told that the Vice President of Operations would not tolerate abuse, harassment or intimidation of employees.<br><br>The process established an open line of communication and a means of free expression without fear of intimidation or reprisal. |
| Page 11   | Page 12  | Page 12   | Page 13  | Page 14   | Page 14   |  |
| On January 1, 2000, implemented a System Teamwork Responsibility Training (START) program. START involves union officials in the disciplinary process and relies on alternative training rather than disciplinary hearings for minor rules infractions. START divides rules violations into 3 categories: minor, serious and major. | After suspension of the controversial railroad policy, the BLE and the UTU successfully negotiated an agreement with the BNSF on attendance policy for train and engine service employees.             | Monumental changes were implemented which resulted in a 53 percent reduction in active discipline cases. The change in policy reflects a culture shift from punitive actions to education, training, and counseling of employees. | A brand new safety program with the BMW was implemented. Under the new program, BMW selects whom they want to run the program, and CSXT pays the salaries of the union reps selected.  | On December 14, 1999, FRA facilitated a meeting which resulted in the formation of an Amtrak West SACP to address Amtrak safety issues in California, Oregon and Washington. Amtrak pledges its support and 27 members met on March 15, 2000.           | Partnership teams of Train & Yard personnel and Track workers have been meeting monthly and are successfully resolving problems though focused audits.                            |  |

## SACP Process Improvements Highlights - Pages 15 - 23

| NS   | BNSF  | UP  | CSXT   | AMTRAK  | KCS   | IC   |
|--|---|---|--|---|---|--|
| <p>Page 15</p> <p>The Fatality Analysis Team conducted an analysis of two incidents that resulted in employee fatalities to determine the root cause. The analysis included a look at all policies and work practices that may have contributed to the accidents. The Team implemented plans to prevent similar incidents.</p> | <p>Page 16</p> <p>The Hazardous Materials SACP team completely eliminated the serious defect problems (ten percent defect ratio in 1998) with the BNSF shipment of hazardous materials. The inter modal teams, including representatives from major shippers, conducted joint audits throughout the BNSF system and made significant changes in the procedures and training by finding the root causes of the deficiencies.</p> | <p>Page 18</p> <p>The Car and Locomotive working groups concentrated on conducting field audits in those areas on the UP system (which operates in 23 States) with serious defective conditions. All serious defective conditions were repaired during the audits. The audits were used to develop a baseline and an overall system action plan to reduce deficiencies system-wide. After the baseline was established, condensed monitoring plans were provided to FRAs Regions 4, 5, 6, 7, and 8, for a 90-day inspection period. The FRA system monitoring results show that car defects have declined from a system-wide high of 27 percent to an end-of-year total of 13 percent. Locomotive system defects declined from 57 percent to an end-of-year 44.9.</p> | <p>Page 19</p> <p>The Signal and Train Control SACP team implemented a very aggressive plan to mitigate a serious safety concern by eliminating pole line deficiencies across its system. CSXT spent \$29 million in 1998 and \$22 million in 1999. All of the deficiencies have been addressed.</p> <p>The Signal and Train Control SACP team successfully completed five audits which have resulted in better switch maintenance, implementation of a maintenance inspection policy and the regular inspection of insulated rail joints. The issue was closed with the development of written inspection and reporting procedures which were incorporated into CSXT's Engineering and Train Control Maintenance Manuals. CSXT spent \$700,000 in 1998 and \$750,000 in 1999.</p> | <p>Page 21</p> <p>SACP follow-up Audit: The joint Amtrak/Knorr/Alstom /FRA tread brake committee is evaluating tread brake problems (TBU) and will monitor corrective actions to final resolution of this safety issue. To remedy the ineffective TBU problem, Knorr will overhaul all Viewliner TBUs with a target completion date of December 2000. Meanwhile, Amtrak will replace damaged TBU rear boots with the new boots on Horizon and Superliner equipment at periodic maintenance.</p> | <p>Page 22</p> <p>FRA found serious deficiencies in the mandatory periodic inspection and replacement of locomotive air brake components. An intensive and closely monitored action plan resulted in the inspection and replacement of all air brake components on the entire fleet in less than three months and the establishment of a program of parts supply and quality assurance that has met FRA's expectations.</p> | <p>Page 23</p> <p>Audits were conducted of the IC's internal programs. As a result, the IC's Harassment and Intimidation program was completely revised. New procedures were established for conducting Efficiency Tests and Inspections. The IC System Timetable Airbrake &amp; Train Handling Rules were revised. Improvements were made to the IC's Control of Alcohol and Drug Use Program and new procedures were established for the Roadway Worker Protection for individuals working on or about the track, particularly on the (Baton Rouge District). A new procedure for the protection of on-track personnel working within Yard Limits is currently being developed and expected to be instituted across the IC property by April 2000. The IC completely revised the administration and monitoring of their Locomotive Engineer Certification Program.</p> |

# SACP Process Improvements (Continued) - Track Highlights - Pages 17- 20

| NS                | BNSF   | UP   | CSXT   | AMTRAK            | KCS               | IC                |
|-------------------|--|--|--|-------------------|-------------------|-------------------|
| No actions noted. | <p>Page 17</p> <p>In accordance with FRA's goal to reduce track related derailments in BNSF and UP train yards, focused team inspections were conducted by the FRA and state partners. As a result, BNSF and UP management developed action plans to ensure that their track inspections are consistent with the action plan, and the quality of their inspections has improved. SACP partnerships with labor and the BNSF, resulted in the railroad increasing the number of track inspectors and reducing the size of their territories.</p> | <p>Page 18</p> <p>The Maintenance of Way (MOW) SACP improved the safety for MOW employees involved in inspection, maintenance, repair, and constructions of tracks and structures.</p> | <p>Page 19</p> <p>The FRA, CSXT, and the BMWE participated in the first ever SACP initiative on a Class I railroad to address maintenance of way staffing levels. Comprehensive track and bridge inspections and listening sessions were held with CSXT employees and supervisors. The review encompassed 1,755 miles of main track, 225 miles of sidings and 173 miles of yard track. A total of 13,594 records was reviewed. The audit report makes recommendations for CSXT to address serious safety issues concerning the adequacy of maintenance-of-way manpower levels, replacement of rail, ties, and ballast, and track surface renewal. Subsequently, CSXT has hired an additional 86 maintenance-of-way workers and responded with a Safety Action Plan. FRA and State Track Inspectors conducted follow-up field inspections and found that CSXT was not in compliance with the Safety Action Plan. A Compliance Agreement has been signed and will be monitored by FRA.</p> | No actions noted. | No actions noted. | No actions noted. |

### Training Improvements - Highlights (Two Issues Per Railroad) - Pages 23 - 27

| NS  | BNSF  | UP   | CSXT   | AMTRAK   | KCS   | IC  |
|---|---|--|--|--|---|---|
| <p>Page 23</p> <p>The SACP new conductor training program has improved crew utilization, reduced employee fatigue and improved the safe movement of trains. NS streamlined the hiring process reduced the period of time between the interview and training. Also a \$100/week pay raise has reduced attrition.</p> | <p>Page 24</p> <p>Through the SACP, a mentoring program has been developed whereby newly promoted signalman maintainers provide a mentor until they are familiar with their territory.</p>  | <p>Page 25</p> <p>To address the root cause of personal injuries, training was provided to mechanical forces on cab signal equipment and event recorders. The training has resulted in a reduction in human caused incidents and injuries.</p>   | <p>Page 26</p> <p>The Track SACP team assured that all track inspectors were field certified. As a result, the inspectors are now required to demonstrate their knowledge to senior official and pass a FRA track exam.</p>  | <p>Page 27</p> <p>Amtrak will provide training for FRA personnel in mechanical and signal systems for high speed trains. The training will enable FRA to become an effective partner with Amtrak management and labor in ensuring the safe implementation of the high speed operation.</p> | <p>Page 27</p> <p>Based on an audit which found significant deficiencies in train air brake and safety appliance inspections, KCS instituted an Action Plan to retrain every train and engine service employee. There has already been improved compliance.</p> | <p>Page 27</p> <p>The IC has entered into an aggressive training program and has signed a long term agreement with a consulting firm that specializes in the training of engineers, conductors, and trainmen.</p> |
| <p>Page 23</p> <p>The SACP team produced two training videos on the hazards of switching operations. Labor and management present the material and conduct audits to ensure employee compliance with the safety rule.</p>   | <p>Page 24</p> <p>BNSF identified all highway-grade crossings on the BNSF that have significant commercial/track traffic and offered track driver educational programs to more than 50 trucking companies. New approach resulted in a 12 percent decrease in grade crossing collisions.</p> | <p>Page 25</p> <p>An engineering training program has been implemented which ensures compliance with locomotive engineer certification. All engine service employees have been trained. Supervisors are now performing the required engineer's observations and operational tests for their employees.</p> | <p>Page 26</p> <p>The Roadway Worker (RWP) SACP team developed a comprehensive program for contractors who perform track work on CSXT. Also, a survey was done to determine the employee's knowledge of the RWP rules. Based on the survey, all managers, engineers and contractor personnel were trained on RWP provisions.</p> | <p>Page 27</p> <p>FRA developed the train dispatcher training for new dispatchers with no block operator experience. The American Dispatchers Division expressed appreciation to FRA for their involvement.</p>  | <p>Page 27</p> <p>Based on an audit, efficiency testing instructions have been revised. New procedures are now in place and every supervisors has been trained on the performance and reporting standards.</p>  | <p>Page 27</p> <p>In cooperation with the FRA and rail labor, IC developed and implemented a comprehensive training program for locomotive and car department personnel.</p>                                      |

## Fatigue Management Highlights - Pages 28 - 32

| NS  | BNSF   | UP   | CSXT  | AMTRAK  | KCS  | IC  |
|---|--|--|---|---|--|---|
| <p>Page 28</p> <p>NS revised division superintendent's safety standards to hold them accountable for tie-up on line of road and any excess time a crew member spends awaiting transportation. This action has significantly improved crew utilization, reduced employee fatigue, and safety.</p> <p>The SACP new conductor training program has improved crew utilization, reduced employee fatigue and improved the safe movement of trains.</p> | <p>Page 28</p> <p>The BNSF successfully implemented 60 programs that allow train and engine crews to have assigned days off. The BNSF pioneered the train crew napping policy in the rail industry and has been successful in changing the General Code of Operating Rules to include rules that allow train crews to nap while on duty which makes napping available as a fatigue countermeasure to most train crews working on the railroads in the western U.S.</p> | <p>Page 28</p> <p>UP developed a program that ensures scheduled crew rest periods and instituted a corporate policy which gives employees a guaranteed right to rest one day after working seven days.</p> | <p>Page 30</p> <p>The CSXT Fatigue Countermeasures SACP team trained employees on train scheduling practices and emergency responses and alertness strategies. 84 percent of the engineers and 46 percent of the crews now have assigned days off.</p> <p>The Crew Release SACP team improved the release of train crews within 12 hours on the Fitzgerald subdivision which represents a 50 percent improvement since the team was formed. This initiative has resulted in a reduction in crew fatigue and safety accidents associated with fatigue.</p> | <p>Page 31</p> <p>The SACP team is evaluating locomotive engineer fatigue issues; specifically lone-engineer-in-the-cab operations between midnight and 6:00 a.m. with no supplemental safety features, e.g., automatic trains control, cab signals.</p> <p>While evaluation is underway, Amtrak has committed to placing a second rules qualified engineer on the 34 identified assignments with a three-hour or greater incursion into midnight to 6:00 a.m. time period when a second engineer is available.</p> | <p>Page 32</p> <p>FRA has been greatly concerned that the demanding service requirements for KCS train and engine employees exceed reasonable expectations based upon current staffing levels. Beyond quality of life issues, FRA was concerned about the cumulative effect of fatigue on the safety of these employees. In March of 1999, KCS was a signatory to a landmark agreement between the BLE, UTU and Class I carriers which seeks to solve chronic worker fatigue problems.</p> | <p>Page 32</p> <p>The IC hired three additional dispatchers and three dispatcher trainees to staff their Homewood, Illinois Dispatching Center. The railroad also purchased the G.E. Harris Computer Assisted Dispatching System to replace the Digit Con system that was in place at the beginning of the SACP. The new system is expected to be better integrated into the crew calling system thus reducing or eliminating the many complaints associated with inaccurate train line ups and complaints associated with fatigue.</p> |

### **III. Appendix**

#### **Safety Assurance and Compliance Program Accomplishments for 1999 and First Quarter 2000**

##### **Cultural Transformation**

###### Norfolk Southern Railway Corporation (NS)

1. On May 10, 1999, NS issued a joint General Safety Information Bulletin to all employees specifying what is expected of company officers to ensure that employees injured on the job receive prompt and appropriate medical care and are treated with respect. This SACP team effort will help assuage any negative employee perception about the railroad's resolve to eliminate harassment and intimidation and will also improve the accuracy of reporting of railroad incidents.
2. On January 1, 2000, NS implemented the System Teamwork and Responsibility Training (START) program. START procedures were negotiated between NS management, the United Transportation Union (UTU) and the Brotherhood of Locomotive Engineers (BLE). The START program will involve union officials in the disciplinary process and will rely on alternative training rather than disciplinary hearings for minor rules infractions. It also eliminates formal disciplinary hearings for employees who sustain injuries. Unions have argued that this practice discouraged the reporting of incidents, which in turn may under report results for safety records. START covers the 12,800 train and engine employees represented by the UTU and the BLE.

The START program divides rules violations into three categories: minor, serious, and major. Minor offenses, such as failure to wear safety glasses or come to work when called, will be handled by training. Employees will not be subject to a formal disciplinary hearing unless the employee has three minor offenses in a three-year period; serious offenses, such as speeding or violations that result in personal injury or property damage, will result in no more than a 30-day deferred suspension for the first offense in a three-year period. A second offense in a three-year period will result in no more than a 30-day suspension. Rule violations resulting in injury will be handled under START. Failure to report an injury is a serious offense; and, NS and the unions also agreed to establish an oversight committee with representatives from the company and the unions to review cases and ensure consistent application of the policy.

Under the current program, rules violations were kept in employees' permanent records an accumulation of which could result in suspension or dismissal; major offenses would result in removal from service pending a formal hearing—dismissals for a single offense are possible if the employee is found guilty. Major rule violations include excessive speeding, drugs or alcohol use, theft, fighting, insubordination, weapons possession, passing stop signals, major accidents and other acts that blatantly disregard the rights of other employees or the company, or that endangers the safety of employees or the public; employees will not be disciplined for failing to immediately report an injury provided. The injury is reported as soon as it manifests itself. There will be no disciplinary



hearings for sustaining injuries. However, NS may conduct fact-finding inquiries to determine the cause of the injury.

#### Burlington Northern Santa Fe Railroad (BNSF)

1. The BNSF-SACP team is implementing a five-year strategic safety plan approved on July 23, 1999. The plan establishes a process of employee empowerment and refers safety issues to system groups for resolution. Forty outstanding safety issues related to maintenance-of-way, mechanical and transportation deficiencies have been resolved. The plan calls for a joint effort to ensure the highest level of safety for all, a commitment to adhere to all regulations, a workplace free of harassment and intimidation, and the joint creation of work practices and tools to enable the BNSF employees the opportunity to perform their tasks safely. One immediate result has been improvement in how end-of-train devices are serviced making this operation safer for mechanical employees. The empowerment process itself is now imbedded into the day-to-day decision making.
2. After suspending the controversial railroad availability policy, the BLE and the UTU successfully negotiated an agreement with the BNSF regarding an attendance policy for train and engine service employees.
3. Senior BNSF management has proposed that rail labor organizations participate in the development of a new discipline policy for the railroad. The BNSF-SACP team will be the forum for the development of this new policy.
4. Region 5 has been actively involved in the BNSF SACP to resolve issues regarding operating practices at the BNSF Network Operations Center (NOC) and the joint BNSF-UP Spring, Texas, Dispatching Center. FRA is a stabilizing force in the NOC Safety Council. This council, which consists of BNSF dispatchers and NOC managers is resolving many safety-related issues and was instrumental in the NOC Y2K planning, preparation, testing and plan implementation. Since the region began participating in this council, there have been no formal complaints forwarded to the FRA by the NOC dispatchers.

#### Union Pacific Railroad (UP)

1. Over a fourteen-month period, the SACP Culture working subgroup, developed safety accountability performance standards for managers (called the Business Conduct-Policy Managerial Process). The system-wide policy was approved and subsequently implemented on July 1, 1999. The policy holds managers accountable for rules, actions of noncompliance, and improper administration of discipline matters.
2. The SACP Discipline subgroup, identified disciplinary actions as having a primary effect on employee morale and quality of life. After nine months of study, significant changes were implemented which resulted in a 53 percent reduction in active discipline cases (6,100 cases reduced to 3,000). At the August Oversight Meeting, UP provided the first

results of the program: 35 percent fewer discipline assessments and a 25 percent increase in counseling in lieu of discipline. The changes in policy reflect a culture shift from punitive actions to education, training, and the counseling of employees.

3. FRA, rail labor and management completed the last SACP service unit roll-out in August 1999. The roll-outs provide a mechanism for accountability and guidance on how to separate local safety issues from systemic safety issues. During the February 2000 UP Leadership Conference held in Omaha, several committees identified the successes achieved utilizing the SACP during FY 1999. The Fort Worth Locomotive Shop was recognized for a 78 percent reduction in reportable employee injury occurrences. A focus group was established on March 15, 2000, to review and assess the effects of the SACP roll-outs and to target safety committees having difficulty implementing the SACP methods and process.

#### CSX Corporation Transportation, Inc. (CSXT)

1. The CSXT SACP Team implementation of the new Individual Development and Personal Accountability Policy is the cornerstone for the culture transformation on CSXT. Employee suspensions and dismissals continue to be very low in comparison to those statistics prior to implementation. The majority of cases requiring disciplinary action are the result of Alcohol and Drug positive test results and railroad operating rules violations of 49 CFR 240 (Locomotive Engineer Certification).
2. After months of negotiations, the SACP team successfully implemented a brand-new safety program. This is the first written safety agreement on the CSXT with rail labor and will result in improved safety. Prior to the implementation of the program, the Brotherhood of Maintenance Way Employes (BMWE) was not participating in the safety initiatives of the railroad. Under the new safety program, the BMWE selects whom they want to run the program and CSXT pays the salaries of the union representatives selected (one for each service lane and one for system gangs and one overall system coordinator) for a total of 14 full time safety craft leaders.

#### National Railroad Passenger Corporation (Amtrak)

1. FRA will partner with Amtrak's labor and management, and the Volpe National Transportation Systems Center (Volpe) in a pilot project to improve safety culture, initially through the consolidation of eight outdated Amtrak safety rule books into one safety rule book. FRA envisions that the safety rule book consolidation will initiate fundamental improvement in Amtrak's safety culture.

FRA, Amtrak, and Volpe have entered into a cooperative agreement with the following objectives: improve the overall safety culture; identify measurable safety-related behaviors; identify latent organizational and work conditions; identify embedded cultural barriers; identify relevant organizational issues; document the project; and establish a SACP cooperative safety process between FRA, Amtrak labor, and Amtrak management to continue with other safety culture improvement projects.

Volpe, with the cooperation of Amtrak labor and management, will establish and conduct baseline and follow-up measures to study the safety rule book consolidation, its outcomes, and other safety culture improvement projects. Baseline measures, to be conducted in Boston, Chicago, and Los Angeles, include a survey instrument, observations, focus groups, and injury rate analysis. The survey instrument was initiated in Boston in February 2000. Volpe is scheduled to discuss the effort at the April joint Safety Council meeting.

2. At its June 3 meeting, the Amtrak Joint Labor/Management Safety Council adopted its charter identifying FRA's Amtrak SACP Project Manager as a non-voting standing committee member. On December 14, 1999, FRA facilitated a meeting with Amtrak West, BLE, UTU, and California State to discuss formation of an Amtrak West SACP Committee to address Amtrak safety issues in California, Oregon, and Washington. Purpose and scope were debated and the charter and operating rules of the Amtrak Joint Labor/Management Safety Council were distributed to generate ideas on committee structure. All parties agreed to establish the committee. Invitations to join the committee have also been extended to other labor organizations.

At the committee's second meeting on January 26, 2000, the new Amtrak Assistant Vice President Safety addressed the committee and pledged Amtrak's support. FRA Regions 7 and 8 are represented on the committee with the Region 7 Deputy Regional Administrator serving as facilitator. The team met on March 15. Twenty-seven participants representing Amtrak labor, management, FRA, and the California Public Utilities Commission were in attendance. Discussion items included committee charter/operating rules, operating rules, and movement directives.

#### Kansas City Southern (KCS)

1. Extremely successful partnerships involving the car inspector's craft at both a system and local levels were formed. These reduced tension and resolved issues so well that complaints to FRA dropped to insignificant levels. Similar partnerships involving dispatchers and signal personnel followed that have also produced positive results.
2. Partnership efforts involving train and yard personnel and track maintenance workers had been sporadic largely due to the wide distribution of employees and an ongoing shortage of personnel that made gathering groups of any consequence extremely difficult. However, following three tragic employees' fatalities and a series of focused audits by FRA, active and successful partnerships have now been formed involving both groups. Representatives of both groups now meet in monthly meetings and joined in recent audits of the KCS Dispatching Center and the SOFA projects.

#### Illinois Central Railroad (IC)

1. The initial stages of the IC SACP identified a need for a cultural change in the way the IC managers and labor leaders conducted business. Changes in the adversarial nature of culture needed to be made, particularly in the southern portion of the IC system.

The FRA conducted numerous listening sessions throughout the IC property. The IC's Chief Executive Officer traveled throughout the IC system holding breakfast and brown bag lunch meetings with the employees in an effort to resolve safety culture issues. In addition, the IC Senior vice-president of Operations informed IC's senior managers that he would not tolerate abuse, harassment or intimidation of employees. The SACP process established an open line of communication and a means of free expression without the fear of intimidation or reprisal.

## **SACP Process Improvements and Audit Results**

### **Norfolk Southern Railway Corporation (NS)**

#### **Accident/Injury Prevention Programs**

1. The Fatality Analysis Team conducted an analysis of two incidents that resulted in employee fatalities in order to determine the root cause(s) and appropriate remedial action. The analysis included a candid exploration of all policies and work practices that may have contributed to this accident. The Team developed and implemented detailed action plans to prevent similar incidents in the future.
2. In September 1999, the SACP met to review the circumstances surrounding a July 1, 1999, highway-rail grade crossing accident near Decatur, Illinois, that killed the Milepost Industries limousine driver and an NS employee. Two other NS employees were seriously injured.
3. In October 1999, the SACP team proposed changes in railroad operating practices which would prevent the recurrence of the fatal injuries sustained by an NS conductor on May 20, 1999, during a switching operation at Ludlow Yard. The conductor was riding on the front step of the a yard locomotive when it struck an unoccupied locomotive.
4. In January 2000, the SACP team proposed changes in railroad operating practices which would prevent the recurrence of the fatality of an NS machinist on November 4, 1999. He was struck by a train moving on a track adjacent to the track on which the locomotives he was inspecting/servicing were located. Because of the circumstances surrounding this incident and the importance of teamwork and understanding among all participants in a task, this SACP team is composed of representatives from both operating and non-operating crafts, i.e., UTU, BLE, BRC, IAM, IBEW, as well as NS, and FRA.
5. The NS Safety Profile Report (Report) of safety issues identified during the SACP assessment was forwarded to the appropriate labor organizations for their review. With one exception, FRA accepted NS responses to the 41 findings and recommendations. FRA met with NS and each rail labor organization that participated in the SACP to formulate remedial action. All parties agreed to continue the partnership efforts to resolve significant issues.

## Burlington Northern Santa Fe Railroad (BNSF)

### **Grade Crossing Safety and Trespass Prevention**

1. A SACP partnership is placing a renewed emphasis on grade crossing safety. As a result, the BNSF spent more than \$50 million on grade crossing related programs in 1999. BNSF has established 22 grade crossing safety manager positions, as well as eight public project managers to work on grade crossing safety and crossing closures. BNSF was able to close 170 grade crossings in 1999 and has set a goal of closing 600 in 2000.
2. The BNSF in partnership with FRA has established an aggressive "zero tolerance for trespasser" program. This program includes public and law enforcement education, a trespasser reporting process through the Resources Operation Center, installation of "No trespassing" signs, aggressive train inspections, improved environmental design and security equipment, and heightened enforcement.

### **Process Improvements and Audit Results**

1. The Hazardous Materials SACP team successfully eliminated serious defect problems (ten percent defect ratio in 1998) with the BNSF shipments of hazardous materials. Intermodal teams, including representatives from major shippers and FRA, conducted joint audits throughout the BNSF system and made significant changes in the procedures and training following the determination of the root causes of the deficiencies.

The highly successful Hazardous Materials SACP audits were conducted at the major terminals of Hobart, California, Minneapolis, Minnesota, and Denver, Colorado. The terminals were audited for compliance by teams including labor, management and customers of the railroad. Working around the clock, teams inspected all aspects of Hazardous Material transportation and documentation. During the weeks that followed participants contacted and discussed the results of the audits with each customer whose shipments were improper. The team inspections produced immediate and tangible results. An excellent example of which is the significant improvements in a long-standing problem with United Parcel Service documentation. After years of frustration trying to affect meaningful and lasting improvement, inclusion of senior company representatives in the audit teams resulted in significant and permanent changes in quality and accuracy which have been systemic.

2. The Motive Power and Equipment SACP team, reviewed BNSF fatalities caused by equipment collapsing on employees. As a result, BNSF, installed permanent jack pads at all locations where equipment is to be lifted for repairs. Subsequently, there has been zero fatalities or injuries attributable to falling equipment.
3. FRA conducted a joint SACP audit with BNSF managers of their rail equipment accident/incident reporting procedures. This audit identified several systemic problems in communicating reliable data between the various operating and equipment departments

and the safety department. These problems adversely affected the safety department's ability to accurately report rail equipment damages. As problem areas were identified, BNSF managers were able to affect procedural changes that have greatly increased BNSF's reporting accuracy.

4. In accordance with FRA's goal to reduce track-related derailments in BNSF and UP train yards, focused team inspections were conducted by the FRA and state partners. As a result, BNSF and UP management developed action plans to ensure that their track inspections are consistent with FRA's Track Safety Standards. The quality of subsequent inspections has improved. SACP partnerships, with labor and management, also resulted in the railroad increasing the number of track inspectors and reducing the size of their territories.
5. Region 7 identified Roadway Worker Safety problems related to track occupancy and inaccurate train lineups on the BNSF. This concern was presented to the SACP system oversight committee for review. Using the SACP process, the FRA, CPUC, Arizona Corporation Commission (ACC), BNSF, and BMWF joined together to address the problem. As a result of this partnership, the BNSF added one additional track inspector to each inspection vehicle, and now uses track warrant and Form B authority to protect roadway workers on the Southern California and Arizona Divisions.
6. On June 9, FRA and BNSF met in Fort Worth, Texas, to review compliance with FRA's employee injury reporting requirements. Following an audit of five of the 22 BNSF divisions, FRA identified 133 cases where the carrier was not in compliance with CFR Part 225 Federal regulations (accident/incident reporting). FRA will use the SACP process to gain compliance with the Agency's required levels of reporting accuracy in the future.
7. The SACP team reduced by 75 percent the complexity and volume of documents required to be carried by the operating crews. Crews had been required to carry 25 pounds of documents and rules. Bulletins and orders are now tailored for the territory over which they operate. All BNSF operating rules, safety books, timetables and other instructions are also now available on BNSF's Internet web site giving the crews immediate access to operating rules books, safety books, air brake and train handling instructions, and system special instructions to help identify rules that relate to each other.
8. The BNSF SACP team has been divided into functional groups that allow an individual labor organization and FRA discipline specialist to coordinate directly with senior railroad officers on issues specific to their functions. This organization has greatly increased the number of safety issues that are being resolved.
9. A database has been developed for the tracking of safety issues by the BNSF-SACP team. This database will be shared by railroad labor, management, and FRA personnel at the system and division levels.

10. In 1999 the SACP team conducted an audit of BNSF's Engineer Certification Program and Efficiency Testing Program. The recorded deficiencies are being corrected through an action plan.
11. In 1999, the SACP team conducted an audit of BNSF's rail equipment accident/incident reporting process. Deficiencies in the data interface between the mechanical department's computer program and the safety department's program were observed. A plan was initiated by the railroad to correct these deficiencies.

#### Union Pacific Railroad (UP)

1. The Car and Locomotive working groups concentrated on conducting field audits in those areas on the UP system reporting high levels of equipment defects. The audits were used to develop a baseline and an overall system action plan to reduce equipment defects system-wide. After the baseline was established, monitoring plans were provided to FRAs Regions 4, 5, 6, 7, and 8, for a 90-day inspection period. The FRA system monitoring shows that car defects have declined from a system-wide high of 27 percent to an end-of-year total of 13 percent. Locomotive system defects declined from 57 percent to an end-of-year 44.9 percent.
2. The Signal Working Group partnership reduced occurrences of false proceeds caused by human factors through improved training, and testing. An FRA team met with the supervisors on the construction side of the signal division in Las Vegas, Nevada to address FRA concerns. The UP agreed to train each employee on the proper test and inspections following installation of signal components.
3. The Maintenance of Way (MOW) SACP improved the safety for MOW employees involved in inspection, maintenance, repair, and constructions of tracks and structures. The UP implemented a qualifications process for machine operators and the SACP team is currently reviewing safety concerns specific to protective clothing.
4. Motive Power and Equipment SACP safety inspections in the UP's Roper Yard, Salt Lake City, Utah, revealed a number of UP flat cars with improper safety appliance modifications. It was determined that safety appliances (side handholds) had been removed from the cars and "elongated slots" were roughly cut into the deck of the cars by means of an acetylene torch. These cars are used nationwide and present a personal injury hazard. When advised of this noncomplying condition, the UP initiated an immediate repair program to replace the missing safety appliances on this series of cars.

## CSX Corporation Transportation, Inc. (CSXT)

### **Grade Crossing Improvements**

1. The joint agreement signed by CSXT with FRA, which implemented a \$4.7 million dollar grade crossing awareness program at 28,000 highway/rail crossings for motor vehicle drivers, was a major factor in the collision reduction in 1999. The SACP team met its goal of having emergency information notification signs installed at 28,000 crossings in 20 states a full year ahead of schedule. This program has been expanded to their newly acquired Conrail trackage. The installation improved the ability of local emergency responders and the motoring public to quickly and accurately report when a vehicle is stalled on a crossing, enabling CSXT to take effective measures to prevent an accident. Since implementation, grade crossing collisions are down on CSXT in 1999. CSXT led the Class I railroads with a 16.4 percent reduction (79 fewer collisions) in 1999 vs. 1998.

### **Safety Process Improvements and Audit Results**

1. The FRA, CSXT, and the BMW E participated in the first ever SACP initiative on a Class I railroad to address maintenance of way staffing levels. Comprehensive track and bridge inspections and listening sessions were held with CSXT employees and supervisors. The review encompassed 1,755 miles of main track, 225 miles of sidings and 173 miles of yard track. In addition, the track inspectors executed walking inspections of 1,122 main line turnouts and 533 yard turnouts. A total of 13,594 records was reviewed. The audit report makes recommendations for CSXT to address serious safety issues concerning the adequacy of maintenance-of-way manpower levels, replacement of rail, ties, and ballast, and track surface renewal. Subsequently, CSXT has hired an additional 86 maintenance-of-way workers and CSXT responded to FRA with a written SAP to address FRA's findings. After receiving CSXT's response, FRA and State Track Inspectors conducted follow-up field inspections and employee interviews. FRA found that CSXT was not in compliance with the SAP. A Compliance Agreement has been signed and will be monitored by FRA.
2. The Signal and Train Control (S&TC) SACP team implemented an aggressive plan to eliminate pole line deficiencies across its system. CSXT spent \$29 million in 1998 and \$22 million in 1999. All of the deficiencies have been addressed. CSXT and Conrail Best Practices forms have been distributed to the field accompanied by a training video for each S and TC Specialist in Regions 1 through 6 who are monitoring CSXT's use of the forms and reporting any discrepancies.
3. The Signal and Train Control SACP team completed five audits which have resulted in better switch maintenance, implementation of a maintenance inspection policy, and the regular inspection of insulated rail joints. The issue was closed on July 1, 1999, with the development of written inspection and reporting procedures which were incorporated into CSXT's Engineering and Train Control Maintenance Manuals. CSXT spent \$700,000 in 1998 and \$750,000 in 1999 on these efforts.



4. The SACP resolved the issue of poor visibility of flashlight signals. CSXT spent \$2.5 million in 1998 and \$200,000 in 1999 to correct this concern.
5. At the CSXT Operations Center a SACP team examination showed a total of 16 original audit issues relating to communications, workload, protocols for dispatchers to give/or receive instructions, training, physical structure and security. Each of the original concerns has been corrected or resolved.
6. The Event Recorder Enhancement Team corrected problems with the software used to download and test locomotive event recorders. In addition, CSXT established written procedures for testing each device resulting in a 90 percent improvement in record keeping. Based on the improvement, CSXT is going to switch to "self-testing" recorders, which will eliminate the need to do full range checks at each periodic inspection. CSXT will check the recorders on an annual basis for accuracy.
7. The Calendar Day Inspection (CDI) Process team audit was completed. The new SACP process involves the use of random sampling techniques with conference calls every three weeks to discuss the results of the random sampling. To date there has been a 40 percent improvement in the compliance with 49 CFR 229.2 regulations. All of the former Conrail territories will go through the same process by September 1, 2000. The Motive Power and Equipment SACP team implemented the CDI Program across the CSXT. The program provides written guidelines for the daily inspection of locomotives at each location. The program has resulted in the resolution of many serious safety conditions on the railroad including cracked wheels on locomotives.
8. The SACP team devised a method to tag, mark, or easily identify a defective Trailer on Flat Car (TOFC) hitch, or Container on Flat Car (COFC) component to alert loaders, groundsmen and railroad personnel of defective components before attempting to load a container or trailer onto the equipment. There are no federally mandated standards requiring TOFC/COFC freight cars to be removed from service when securement equipment is defective. In many cases, the car remains in service and interchanged at other railroad facilities where knowledge of the defective condition may not be known. CSXT has agreed to use a bright orange tag, similar to a bad order tag on defective TOFC/COFC components.
9. The Hazardous Materials SACP team found that the hazardous materials crews were not being provided the proper documentation for hazardous materials movements. To prevent regulatory noncompliance, the train dispatcher is now notified if a car containing hazardous material is found without the proper train documentation. The train dispatcher arranges to have an updated CSXT train document delivered to the train crew. If this is not possible, the information required to move will be transmitted to the crew over the radio and printed legibly on a radio waybill form (a new form just created by CSXT). These forms are available at all on duty locations. This initiative has reduced the number of hazardous materials incidents.

10. The SACP team resolved serious deficiencies with loading hazardous materials originating from the Blount Island Marine and Charlestown, South Carolina, facilities. Training was provided to persons responsible for loading ammunition trains. The team is continuing spot inspections at high volume ramps in Chicago, Atlanta, New Orleans, Jacksonville, Philadelphia and Baltimore. Random loads are opened and inspected for proper blocking and bracing; loads not properly blocked/braced are rejected and returned to shipper for corrective action.
11. The mini-audit program developed through the SACP is continuing system-wide. The program requires each terminal manager (TM) to have an employee (labor or management) complete an audit of the facility each month. The TM is responsible for addressing each unsatisfactory condition disclosed by the audit. The form is reviewed by the CSXT regional manager as part of the TM's overall performance rating.
12. The Incidental Reporting SACP team designed and implemented an incidental report which enables CSXT employees to report minor incidents as soon as an injury occurs and to jointly determine a course of action. The benefit has been a reduction in more serious injuries because a thorough root cause analysis is conducted for every incident to determine what changes, if any, must be made to insure there is no recurrence of the incident, and to increase the awareness of the potential for injury.

#### National Railroad Passenger Corporation (Amtrak)

1. The Joint High Speed System Safety Partnership team, consisting of Amtrak management, labor (Brotherhood of Locomotive Engineers and the United Transportation Union), and FRA, is monitoring and verifying the processes and procedures necessary to safely implement the high speed system. The team conducted a joint inspection of the wayside signal system on the Northeast Corridor (NEC) between Boston and New Haven and identified numerous locations in need of safety attention. All parties have agreed to participate in a NEC system safety program process to ensure the safe integration of high speed operations into existing operations. Three division teams will identify and resolve hazards and risks in the New England, Metropolitan, and the Mid-Atlantic divisions. System safety program process training will be conducted by Booz-Allen and Hamilton, Incorporated, consultants.
2. SACP follow-up Audit: The 49 CFR Part 225 (railroad accident/incident reporting) issue has been closed with the submission of the audit team's report to Amtrak. The systemic problem of non reporting and late reporting of passenger and employee injuries has been eliminated. The audit team will return in 2000 to review 1999 records.
3. SACP follow-up Audit: The joint Amtrak/Knorr/Alstom/FRA tread brake committee is evaluating tread brake problems (TBU) and will monitor corrective actions to resolve this safety issue. To remedy the ineffective TBU problem, Knorr will overhaul all Viewliner TBUs with a target completion date of December 2000. Meanwhile, Amtrak will replace damaged TBU rear boots with the new boots on Horizon and Superliner equipment at periodic maintenance. With commitments in place, the committee agreed to disband and

the SACP team agreed to close the issue. This was the last remaining open issue in the Amtrak SACP follow-up Audit.

With the establishment of several partnership initiatives and the completion of the follow-up audit, the finite audit-style SACP has evolved into an ongoing partnership-style SACP.

The last of 22 partnership meetings to ensure the safe migration of the New York Claytor/Scannell Penn Station Control Center into the amphitheater was held on January 20. This successful partnership of FRA, Amtrak, Long Island Rail Road, American Dispatching Division (ATDD), and the Transportation Communications Union provided a forum to raise, address, and resolve safety and work issues. The ATDD expressed appreciation for FRA's involvement.

4. Region 1 has successfully partnered with Amtrak labor and management to prevent serious injuries and accidents to roadway workers. Since the inception of the Northeast Corridor (NEC) Electrification Project in 1996, FRA has monitored the safety of roadway workers and train operations. The region has helped hasten the advent of high speed train service in the NEC.

#### Kansas City Southern (KCS)

1. The Kansas City Southern SACP Initiative continues to be successful in meeting the need for change on this smallest of Class I railroads. In 1999, FRA became concerned when the train accident rate for KCS continued to show rates of nearly double the national average for Class I railroads. In 1997, KCS reported a train accident ratio of 8.59 compared to the national average of 3.31. In 1998, KCS reported a train accident rate of 7.62 compared to the national average of 3.67. And, after nearly eight years without a fatality, in a period of less than seven months, KCS experienced three fatalities involving train service employees. FRA examined all aspects of KCS maintenance and operation in the last quarter of 1999. As a result, FRA requested improvements in: Locomotive Inspection and Maintenance; Operational Efficiency Testing; Roadway Worker Protection; Hub-Style Operations; Utilization of Train Service employees; Engineering Department Record Keeping; Repair of a major moveable span bridge at Monroe, and Improvements in Dispatching Center Operations.

KCS responded with action plans to address FRA's SACP safety audit concerns. A senior management meeting has planned for early 2000 at which time a report will be delivered on the progress of those action plans.

2. During 1999, FRA found serious deficiencies in the mandatory periodic inspection and replacement of locomotive air brake components. Long-standing noncompliance had created a situation in which FRA no longer had confidence in the carrier's ability to properly inspect or maintain locomotives according to regulations. An intensive and closely monitored action plan resulted in the inspection and replacement of all air brake components on the entire fleet in less than three months and the establishment of a program of parts supply and quality assurance that has met FRA's requirements.

3. The KCS has embarked on a major revitalization of its locomotive fleet through the purchase of new, high horsepower locomotives and the parallel retirement of older, high maintenance and problem maintenance locomotives. As a result, FRA has found a dramatic improvement in locomotive serviceability on the system.

#### Illinois Central Railroad (IC)

1. SACP partnership audits were conducted on a number of the IC's internal programs. As a result, the IC's Harassment and Intimidation program was completely revised. New procedures were also established for conducting Efficiency Tests and Inspections. In addition, the IC System Timetable Airbrake & Train Handling Rules were revised, improvements were made to the IC's Control of Alcohol and Drug Use Program, and new procedures were established for Roadway Worker Protection for individuals working on or about the track, particularly on the (Baton Rouge District). Finally, a new procedure for the protection of on-track personnel working within Yard Limits is currently being developed and expected to be instituted across the IC property by April 2000. The IC completely revised the administration and monitoring of their Locomotive Engineer Certification Program.

### **Training Improvements**

#### Norfolk Southern Railway Corporation (NS)

1. The SACP-collaborated new conductor training program has improved crew utilization, reduced employee fatigue, and improved the safe movement of trains. The hiring process has been streamlined, reducing the period of time between the initial job applicant interview and the start of training to 30 days or less. NS also approved a \$100/week pay raise for the participants that equates to a 33 percent pay raise for the employees. This action has reduced turnover and attrition.
2. The SACP team produced two educational videos to simulate the hazards associated with switching operations (switchman crushed between the end platforms of two cars when the drawbars bypassed during an attempted coupling) and moving equipment (conductor walking on the tie ends was struck and killed by equipment approaching from behind). Each of the videos comes with a lesson plan and is designed to facilitate employee participation. Labor and management jointly present the material and conduct follow up audits to ensure employee compliance with the safety rules.
3. The Manpower SACP Team developed a mentoring and training program that will significantly improve the ability of crews to effectively resolve safety concerns in a timely manner. FRA, three NS General Chairmen (labor), three senior labor leaders, the NS Vice President for Labor Relations, and other senior NS staff met to finalize the program. Labor is very pleased with this effort.

### Burlington Northern Santa Fe (BNSF)

1. A SACP-developed lesson plan for continuing education has been distributed to signalmen and signal maintainers on the BNSF. Also, a mentoring program has been developed whereby newly promoted signal maintainers will be provided with a mentor until they are familiar with their assigned territory and the equipment on that territory
2. A SACP team identified all highway-rail grade crossings on the BNSF that have significant commercial/industrial truck traffic and targeted the user companies for educational training. The new approach resulted in a 12 percent decrease in highway/rail grade crossing collisions in 1998, compared to 1997. The improvement continued into 1999. In 1999, BNSF offered truck driver educational programs to more than 50 major trucking companies. The BNSF-SACP safety team will be working to develop safety partnerships with major trucking companies to provide safety, and Operation Lifesaver training to truck drivers.
3. Using the SACP process, BNSF changed its philosophy toward public education on grade crossing safety in 1999. The carrier switched from using a small group of full-time Operation Lifesaver presenters, to using grade crossing managers to coordinate the activities of more than 200 employee and citizen volunteers.
4. Using the SACP process, BNSF has established a program to partner with local law enforcement personnel. The carrier is providing one-on-one training to police officers, "Roll Call" instruction and videos, joint positive enforcement activities, 315 Officer-on-the-Train events, and 241 Grade Crossing Collision Investigation classes. This program has been certified by the National Sheriff's Association and the International Association of Chiefs of Police.

### Union Pacific Railroad (UP)

1. The FRA and CPUC conducted a complaint investigation at Roseville, California. At issue is the nationwide concern of which craft was properly qualified to move locomotives within the confines of the blue signal area. The UTU believes only hostlers are qualified to perform this duty, while UP believes mechanical craft personnel, if properly trained, can also perform this duty. Region Seven worked with the FRA Associate Administrator for Safety, to form a SACP team of representatives with other FRA regions, the CPUC, and railroad labor and management to resolve the issue. The FRA has no regulatory position indicating a preference as to which craft performs these services as long as the work is performed safely by properly trained individuals and is consistent with federal requirements. This team performed a comprehensive study of the issue and developed a Locomotive Mover Training Program that is intended to be used system-wide by UP.
2. To address the root cause of personal injuries, the Locomotive SACP team proposed training to mechanical forces on distributive power, cab signal equipment, and event

recorders. The training program has resulted in the reduction of human caused incidents and injuries and has increased the employees safety knowledge and skills.

3. An engineer training program has been implemented which ensures compliance with the requirements for locomotive engineer certification. All engine service employees have been trained. Supervisors are now performing the required engineers' observations and operational tests for the employees assigned to them and internal accountability standards have been implemented.
4. The Signal SACP team implemented an in-depth training program to address proper installation, maintenance, and testing procedures for all construction supervisors and employees. The program ensures that all employees are trained, qualified, and supervised and minimizes the potential for equipment-caused incidents and injuries.
5. A SACP-developed training module for contract van drivers and managers is under final review. The module will address fatigue and drowsy driver issues. The module will be given to all contract van drivers/managers beginning in March 2000.
6. The Maintenance of Way working group presented a proposed "Machine Operator Qualification Process" and "Training and Testing Policy" to the Oversight Committee in May of 1999. The qualification processes will insure adequate training and annual certification for machine operators.
7. Field training on electronic record-keeping for train and engine personnel is being conducted by peer trainers. FRA has conducted reviews at various locations to determine the effectiveness of the training, develop accuracy indicators, and measure the commonly recurring errors by crewman. FRA continues to identify data deficiencies and is working in partnership with UP computer programming experts to correct problems.
8. The Hours of Service (HOS) team developed a program to improve compliance with the HOS Act and record-keeping requirements. The program ensures the verification of safety working schedules for operating employees. In addition, all UP dispatchers have received additional training. UP is the first railroad to change their official carrier operating rules to relieve crews before the end of their authorized twelve hours. Also, crew members have their trains secured prior to the expiration of the 12 hours of duty when a relief crew is not available. The result is that trains will not be left unattended without being secured.

## **Quality of Life Issues**

### **Fatigue Management and Improvements in Manpower, Staffing and Crew Utilization**

#### Norfolk Southern Railway Corporation (NS)

1. NS revised its Division Superintendent's performance standards to hold them accountable for any train congestion and excess time a crew member must spend on the train awaiting transportation. This action has significantly improved crew utilization, reduced employee fatigue, and improved safety.

#### Burlington Northern Santa Fe

1. The BNSF has successfully implemented more than 60 programs that allow train and engine crews to have assigned days off. The BNSF, which pioneered train crew napping policy in the rail industry, has been successful in changing the railroad industry's General Code of Operating Rules (GCOR) to include rules that allow train crews to nap while on duty. This change in the GCOR makes napping available as a fatigue countermeasure to most train crews working on railroads in the western United States.

#### Union Pacific Railroad (UP)

1. The Fatigue SACP team developed a program that ensures scheduled crew rest periods. Employee fatigue is a major contributing factor to human-factor caused train accidents and poor morale. In addition, UP instituted a corporate policy which gives employees the guaranteed right to rest one day (time-off) after working seven days.
2. Primary accomplishments of the fatigue SACP working group include: development of a fatigue education program for all employees and their families that addresses shift work, sleep disorders and insomnia (program was provided to all employees and families and is on the Internet); and implementation of a napping pilot for operational yard and local crew members on October 11, 1999, at the Houston Terminal. This is the first pilot of its kind in the rail industry that applies to road crewmen.

As of March 1, 2000, there have been 117 work/rest agreements (scheduled work days/guaranteed rest days) ratified for train and engine men. Of those, 64 are implemented and 53 are near implementation. An additional 45 are in various stages of ratification. A total of 139 agreements is currently being negotiated. These represent approximately one-third of the total number of agreements that exist on the UP railroad.

3. A fatigue/sleep deprivation video has been developed to address issues encountered by supervisors and managers. The video is currently being mailed to all supervisors and managers.

4. A training module for contract van drivers and managers is under final review. The module will address fatigue and drowsy driver issues. The module will be given to all contract van drivers/managers beginning in March 2000.

## **Crew Utilization**

1. The SACP working group identified several areas that affect crew behaviors. The concerns pertain to timely relief from work, lodging facilities, crew transportation, and hours on duty accomplishments include the following.

The working group evaluated and made enhancements to the transport service performance standards. Also, a new computer-based program was implemented that ensures the effective utilization of drivers and vans by providing accurate/real time dates and the response time for a requested van. The programming allows the UP to become a paperless operation reducing operational costs to both the railroad and transport companies and enhances the ability of local managers to know where the drivers/vans are located, when they are available for crew transport, and provides improved service to the carrier and timely relief of crewmen.

The Crew working group implemented a crew monitoring process in February 2000. The process reduces the occurrence of unnecessary vehicular transport of crews. This has already had a positive impact on reducing the cross-deadheading delays.

The Crew working group endorsed a proposal to update the train movement database. This will provide better information on train running times between terminals for both revenue and freight trains. The goal is to improve train line-up accuracy. In January 1999 the accuracy level was at 62 percent and by March 2000 had reached a level of 73.4 percent

2. As a result of the SACP team workload study of the dispatcher positions at UP's Harriman Dispatch Center (HDC) in Omaha, workloads were realigned and additional positions were added to relieve excessive workloads. UP hired 114 new train dispatchers in 1998 and 124 new dispatchers will be hired in 1999. The goal is to have six dispatchers per station. Currently, the carrier has 5.3 dispatchers per station.
3. The Powder River Basin Dispatching Center was relocated from the HDC to a new joint UP/BNSF facility. The result has been better crew utilization and a significant improvement in the control of trains. Prior to the relocation, the average train speed was 12 mph; it is now 19 mph. Problems of congestion and derailment have also been addressed.
4. The SACP team participated in recommendations to decentralize coordinated dispatching centers in San Bernardino, California, Spring, Texas and Kansas City, Missouri. The



plan was implemented six months ahead of schedule. Problems of congestion and derailment have also been addressed.

### **Dispatcher Workload**

1. As a result of various studies made during the past year at the UP HDC, recommendations were made to re-evaluate the workloads of specific dispatcher positions and realign and create additional dispatcher positions that would relieve excessive workloads. Advancements during 1999 included the establishment of coordinated dispatching centers in San Bernardino, California, Kansas City, Missouri, and North Platte, Nebraska and the development of new positions in Chicago, Roseville and the Kansas City area.
2. Currently the HDC has established system standards for training, recertification, and efficiency testing for all dispatching offices and control operator locations.

### **Inspection and Testing Working Groups**

1. The SACP Maintenance of Way lodging subgroup implemented a formal Lodging Policy for UP Employees. The lodging group also developed a resolution process for handling lodging problems and complaints. This process includes a lodging survey to be used by an employee in the evaluation of an existing facility or a facility under consideration for lodging. In July 1999, the Lodging Group tested the Lodging Survey in more than 28 locations on the UP. This process is in the final pilot stages and was reviewed for adoption system-wide in February 2000. Final pilot locations included Houston, Livonia, Portland, Fresno, Los Angeles, Cheyenne, and Green River. All members of the committee have an equal voice in the selection of targeted lodging facilities.

Educational Material has been developed by the Lodging group. These include: Good Sleep Habit and Lodging Facility Environmental Factors, and Lodging Facility Evaluation Guidelines and Evaluation booklets.

A new Maintenance of Way Coordinator position was created within the HDC in September of 1999. The position will track slow orders put into place by track personnel. This position will help speed crew release/relief, and will monitor track permits that have been issued.

### **CSX Corporation Transportation, Inc. (CSXT)**

1. The Fatigue Countermeasure SACP team educated and trained employees on train scheduling practices, emergency response requirements and alertness strategies. The results are significant. Eighty-four percent of the engineers and 46 percent of the crew now have assigned days off. System-wide, 85 percent of all extra boards have assigned rest days.

2. The Crew Release SACP team improved train crew relief within 12 hours on the Fitzgerald subdivision. This initiative has resulted in a reduction in crew fatigue and safety accidents associated with fatigue. Graphs and data are now provided to managers who have been able to use the information to improve crew releases from duty.
3. Starting on March 1, 2000, after being off duty and coming back on duty, train and engine service employees will be able to mark up at noon. CSXT is looking at the possibility of having napping rooms in terminals for line of road crews.

#### National Railroad Passenger Corporation (Amtrak)

1. The SACP team is evaluating locomotive engineer fatigue issues, specifically one-person engineer-in-the-cab operations between midnight and 6:00 a.m. with no supplemental safety features, e.g., automatic train control and cab signals. Options being considered are modified assignments, off-duty napping, education and training, and identification of problem sleepers. While evaluation is underway, Amtrak has agreed to placing a second qualified engineer on the 34 identified assignments with a three-hour or greater incursion into the midnight to 6:00 a.m. time period, when a second engineer is available.

The joint Amtrak/BLE/FRA Alertness Evaluation Task Force met on October 26 and agreed that a more objective analysis process is needed. Amtrak Intercity and Circadian Technologies Incorporated (CTI) are exploring a joint venture to develop a pilot program to evaluate engineer alertness and workload. The pilot program would incorporate a joint Amtrak/BLE/FRA steering committee. The Amtrak Assistant Vice President for Safety recently expressed a commitment to an Amtrak system-wide, examination of fatigue beyond the employees covered by traditional HOS regulations.

CTI, under contract with Amtrak Intercity, is conducting a locomotive engineer alertness management pilot project on the Jacksonville-Lakeland, FL operation. Six locomotive engineers are wearing Physical Activity Monitors for a three-week period (the target is 12 locomotive engineers). The CTI effort includes education, training, engineer sleep disorder identification, and engineer assignment optimization. The joint Amtrak labor/management/FRA/CTI fatigue steering committee previewed an educational video on April 18. Of significant note, Amtrak management committed to expanding the Amtrak Intercity initiative by adopting fatigue mitigation as a system-wide effort to include the Amtrak West in addition to Amtrak Intercity.

2. The SACP team is evaluating the recruitment, training, and retention of Amtrak train dispatchers on the NEC. With the closure of many block stations, Amtrak is losing its traditional source from which to recruit future train dispatchers. Labor and management have expressed concern with the supply and quality of recruits. With the advent of increased train density and high speed rail, this issue has safety implications. The SACP team report evaluating this issue will be issued shortly.

### Kansas City Southern (KCS)

1. FRA was concerned about the cumulative effect of fatigue on the safety of KCS train and engine employees. In March 1999, KCS was signatory to a landmark agreement between the BLE, UTU and Class I carriers which seeks to solve chronic worker fatigue problems. As a result, complaints from railroad employees denied lay off and vacation privileges have dropped from a high average of 20 per week to less than two per month.
2. Following a series of focused audits in November of 1999, FRA requested and received action plans which addressed several concerns for staffing levels. Following one action plan target, the carrier has increased its locomotive maintenance staff by 16 percent. In addition to newly hired employees, other veteran employees were offered opportunities to move to the primary locomotive maintenance facility in Shreveport, Louisiana, consolidating inspection and maintenance at one strategically located supply point.
3. As a result of an FRA recommendation, a large "hub-style" operating territory for engineers at Shreveport has now been divided into smaller and therefore much safer segments. In the past, young and relatively inexperienced engineers without regular assignments were expected to know and safely operate over an extremely large and diverse operating territory. Following a fatal accident in November, FRA expressed concern that demands on the skill and memory exceeded the capabilities of a new engineer involved in the incident.
4. As a result of another FRA recommendation, additional Managers of Operating Practices have been appointed with reduced territories and fewer engine service employees to manage.

### Illinois Central Railroad (IC)

#### **Improvements in Manpower, Staffing and Crew Utilization**

1. The IC hired three additional dispatchers and three dispatcher trainees to staff their Homewood, Illinois, Dispatching Center. The railroad also purchased the G. E. Harris Computer Assisted Dispatching system. The G. E. Harris system replaced the Digit Con system that was in place at the beginning of the SACP. It was believed that the new system would be more readily integrated into the crew calling system thus reducing or eliminating many complaints associated with inaccurate train lineup. Unfortunately, the new system did not perform as well as expected and a decision has to be made shortly on whether or not the system can meet the current demands of the railroad.



U.S. Department  
of Transportation  
**Federal Railroad  
Administration**

Office of the Administrator

400 Seventh St., S.W.  
Washington, D.C. 20590

MAY 17 2000

The Honorable Albert Gore, Jr.  
President of the Senate  
Washington, D.C. 20510

Dear Mr. President:

Section 214 of the Federal Railroad Safety Authorization Act of 1994 (Title II, Pub. L. No. 103-440) requires the Secretary of Transportation to submit a report to the Congress "on the development, deployment, and demonstration of positive train control systems." This "progress report" supplements the report "Railroad Communications and Train Control," which was provided to the Congress on July 8, 1994, pursuant to Section 11 of the Rail Safety Enforcement and Review Act (Pub. L. No. 102-365).

On behalf of the Secretary, the Federal Railroad Administration (FRA) is pleased to submit this report on the status of efforts to implement Positive Train Control (PTC) systems. "PTC" refers to the safety attributes of train control systems that utilize new technology to achieve improved safety. PTC systems will address the following "core functions":

- Preventing train-to-train collisions (positive train separation);
- Enforcing speed restrictions, including civil engineering restrictions (curves, bridges, etc.) and temporary slow orders; and
- Providing protection for roadway workers and their equipment operating under specific authorities.

Some PTC concepts also have the potential to provide warning of roadway work equipment operating outside the limits of authority and to receive and act upon available hazard information (e.g., high winds, high water, equipment defects) in a more timely or secure manner. In the future, PTC systems could generate data that could be transferred to highway users to enhance safety at highway-rail crossings as a part of Intelligent Transportation Systems.

PTC will require significant resources to develop and deploy on a large scale. Presently, deployment on the entire national rail system cannot be justified on safety grounds alone. However, passenger railroads will require PTC systems to operate safely at high speeds, optimize line capacity, and achieve acceptable trip times. We will continue to encourage railroads to deploy PTC voluntarily. FRA expects that freight railroads will integrate PTC technology into their business plans as demands for service quality increase and as capacity constraints require more precise management of train movements. While expenditures for deployment of PTC will fall largely on railroads requiring these systems for business and safety purposes, the Department of Transportation and other federal agencies can hasten the advent of this technology by--

- Providing a reliable radio navigation platform through completion of the National Differential GPS network;
- Ensuring adequate allocation of radio frequency spectrum;
- Putting in place performance-based regulations that facilitate introduction of new technology; and
- In concert with major railroads, completing investments in technology development that can prove the viability of new, interoperable PTC systems suitable for deployment at varying levels of functionality on the general freight railroad system (through the North American Joint PTC project).

Deployment of PTC systems has begun. Working with the State of Michigan and FRA, Amtrak has begun the first of two 90-day implementation periods after which train speeds will be increased above the current 79 miles per hour on its corridor in Michigan. Within the next few months, the National Railroad Passenger Corporation (Amtrak) and New Jersey Transit Rail Operations will begin utilizing compatible technology to achieve PTC functions using transponders placed in the gage of the track and onboard computers, in coordination with existing and planned cab signal and automatic train control systems. These systems will support improved safety. Amtrak's system will also facilitate high-speed service on the Northeast Corridor particularly in the territory from New Haven, Connecticut, to Boston, Massachusetts, where electrification is being completed.

PTC systems elsewhere may utilize different technical approaches, due to the absence of cab signals and automatic train control on most freight lines and the need to minimize the cost of equipment along the right of way. For example, the Department is establishing the Nationwide Differential GPS to enable satellite-based location determination systems for PTC. Beginning in January of 1998, FRA, the state of Illinois, and the Association of American Railroads joined together to support a North American Positive Train Control Project. This project is developing a highly capable PTC system designed to address the needs of passenger and freight railroads.

The North American project also includes the objective of describing standards for "interoperability" of train control systems so that locomotives owned by one railroad will respond to control by the PTC system in place on a host railroad. This is particularly important as a practical matter, since various forms of joint operations are increasingly widespread on the national rail system.

Even as the North American project proceeds, individual railroads continue to explore other systems that could address PTC core functions. These efforts may provide insights regarding means of addressing safety and other needs that could significantly influence the development and deployment of PTC systems.

Recognizing the technical and institutional complexity of this issue, in September of 1997, FRA tasked the Railroad Safety Advisory Committee (RSAC) with investigating the potential of PTC and providing guidance regarding the steps that should be taken to encourage its deployment. The RSAC established a PTC Working Group, consisting of representatives of passenger and freight railroads, labor organizations, signal and train control suppliers, and states. The Working Group completed a progress report on implementation of PTC in August of 1999, and on September 8, 1999, the RSAC unanimously adopted the report, a copy of which is enclosed.

The RSAC's PTC report constitutes the single most authoritative and complete account of efforts to improve safety through enhanced train control. It contains a wealth of information on current PTC projects, a detailed description of collisions and other accidents preventable by PTC, and an economic analysis that explores costs and benefits of PTC as applied to the major railroads. The report also sets forth findings, conclusions and recommendations for public and private sector action that point the way for implementation of PTC. I encourage careful consideration of the information and views contained in this document, which reflects the consensus views of the RSAC parties.

Copies of this letter and the enclosed report have been provided to the Speaker of the House of Representatives and the Chairmen, Senate Committee on Commerce, Science, and Transportation and the House Committee on Transportation and Infrastructure.

Sincerely,

A handwritten signature in cursive script, reading "Jolene M. Molitoris".

Jolene M. Molitoris  
Administrator

Enclosure

## AMENDMENTS TO PFC APPROVALS

| Amendment No. City, State                | Amendment approved date | Original approved net PFC revenue | Amended approved net PFC revenue | Original estimated charge exp. date | Amended estimated charge exp. date |
|--|-------------------------|-----------------------------------|----------------------------------|-------------------------------------|------------------------------------|
| 92-01-C-03-GJT, Grand Junction, CO ..... | 03/17/00                | \$1,812,000                       | \$1,794,117                      | 03/01/04                            | 04/01/03                           |
| 96-02-U-02-GJT, Grand Junction, CO ..... | 03/17/00                | NA                                | NA                               | 03/01/04                            | 04/01/03                           |
| 97-03-C-01-GJT, Grand Junction, CO ..... | 03/17/00                | \$2,157,000                       | \$1,932,000                      | 03/01/04                            | 04/01/03                           |
| 92-01-C-07-SJC, San Jose, CA .....       | 03/30/00                | NA                                | NA                               | 09/01/03                            | 09/01/03                           |
| 96-01-I-02-BTV, Burlington, VT .....     | 04/14/00                | \$12,476,233                      | \$22,966,283                     | 03/01/06                            | 12/01/10                           |
| 96-02-C-01-BTV, Burlington, VT .....     | 04/14/00                | \$40,000                          | \$40,000                         | 03/01/06                            | 12/01/10                           |
| 98-04-C-01-CLM, Port Angeles, WA .....   | 04/17/00                | \$118,572                         | \$122,650                        | 11/01/01                            | 11/01/00                           |
| 98-02-C-02-IAD, London, VA .....         | 04/25/00                | \$34,919,777                      | \$52,324,581                     | 05/01/10                            | 04/01/11                           |
| 98-03-C-01-DCA, Arlington, VA .....      | 04/25/00                | \$23,563,086                      | \$46,823,287                     | 02/01/02                            | 05/01/03                           |

Issued in Washington, DC on May 4, 2000.

**Eric Gabler,**

*Manager, Passenger Facility Charge Branch.*

[FR Doc. 00-12144 Filed 5-12-00; 8:45 am]

**BILLING CODE 4910-13-M**

## DEPARTMENT OF TRANSPORTATION

### Federal Railroad Administration

[Docket No. FRA 2000-7325]

#### Remote Control Locomotives; Establishing Guidelines

**AGENCY:** Federal Railroad Administration (FRA), Department of Transportation (DOT).

**ACTION:** Notice of technical conference.

**SUMMARY:** FRA is initiating a technical conference to examine the use of remote control locomotive operations in the railroad industry. FRA plans to hold a technical conference on July 19, 2000, to discuss the current status of remote operation and possible development of guidelines for remote operations with all interested parties. FRA is exploring the use of guidelines to provide consistent, safe, industry-wide remote control locomotive use.

**DATES:** 1. A technical conference will be held on July 19, 2000, beginning at 10 am.

2. The deadline to register for participation in the technical conference is close of business on July 12, 2000. Please see Public Participation Procedures in **SUPPLEMENTARY INFORMATION** section of this document for registration details.

**ADDRESSES:** 1. Technical conference: FRA Headquarters, 7th floor, conference rooms 1 and 2, 1120 Vermont Ave. NW, Washington DC.

2. FRA Docket Clerk: Federal Railroad Administration Docket Clerk, Office of Chief Counsel, Mail Stop 10, 1120 Vermont Ave. NW, Washington DC, 20590. E-mail address for the FRA

Docket Clerk is  
renee.bridgers@fra.dot.gov.

**FOR FURTHER INFORMATION CONTACT:** S. Joseph Gallant, Operating Practices Specialist, FRA Office of Safety, Mail Stop 25, 1120 Vermont Ave. NW, Washington DC, 20590 (telephone: 202-493-6324), or Alan H. Nagler, Trial Attorney, FRA Office of Chief Counsel, Mail Stop 10, 1120 Vermont Ave. NW, Washington DC, 20590 (telephone: 202-493-6055).

#### SUPPLEMENTARY INFORMATION:

##### Background

Locomotives operated by use of remote control devices have been in use for a number of years. The term "remotely controlled locomotives" or "remote control locomotives" refers to a locomotive which, through use of a radio transmitter and receiver system, can be operated by a person while not physically within the confines of the locomotive cab. (As used in this notice, the term "remote control locomotive" (RCL) does not refer to use of distributive power, in which a locomotive or group of locomotives entrained or at the rear of a train is controlled by an engineer located in another locomotive within the same consist.) Although RCL operations are common place in steel mills, plant railroads and Canadian railroad systems, RCL operations have not been widely used by American railroads that are part of the general system of transportation.

Arguably, the RCL technology is still relatively new. In 1994, FRA proposed a nation-wide test of rail operations involving remotely controlled locomotives. 59 FR 59826 (Nov. 18, 1994). FRA published proposed interim guidelines for what was intended to be a two-year test period. 59 FR 59826, 59828-29 (Nov. 18, 1994). FRA stated that guidelines were necessary to assure that continued use of this new technology does not create a safety risk to

railroad employees or the public. FRA also does not want to hinder the development of new technologies which may be of benefit to the rail industry. \* \* \* All railroads using such remote-control systems will be permitted to continue using such systems only if they participate in the long-term test, so that FRA can evaluate remote control operations in light of the regulatory and statutory obligations imposed upon all railroads.

59 FR at 59827 (Nov. 18, 1994). On February 23, 1995, FRA held a public hearing to gather testimony on remote control operating procedures. Several manufacturers, labor organizations, railroads and their associations participated in the hearing. The testimony provided by these organizations revealed a broad spectrum of opinion concerning the merits of the program, the substance of the program requirements, the risks associated with railroad employees and the safety of the technology. While information and opinions gathered at this meeting were helpful, FRA never took final agency action to implement guidelines and the test program never occurred. Instead, FRA has continued to review RCL operations on a case-by-case basis.

Recently, FRA has become aware of renewed interest in RCL operations. This interest has led to an increased number of questions concerning FRA's position with respect to those operations and particular types of RCL devices. Additionally, RCL technology and operating procedures continue to evolve. FRA believes that it would be prudent to re-examine the safety issues surrounding RCL operations at this time and consider whether to issue guidelines.

#### Technical Conference

The purpose of this technical conference is to determine the extent of RCL operations, the various purposes for which RCL technology is used, and the safety of these operations. FRA will examine all the pertinent safety aspects of RCL operations, including: (1) design

standards, e.g., weight, size and ergonomic considerations; (2) employee training, e.g., hands-on training considerations; (3) operating practices and procedures, including but not limited to standard operating procedures, safety rule modifications, and railroad operating plans; (4) test and inspection procedures, including but not limited to electric and magnetic field emissions; (5) security and reporting issues, including but not limited to recordkeeping and notification to FRA concerning all RCL accidents and incidents. FRA requests that interested parties share their views regarding the use of consistent and safe RCL operations. FRA encourages comments on all aspects of RCL use. A transcript of the technical conference will be taken and placed in the public docket of this proceeding.

#### Public Participation Procedures

Any person wishing to participate in the technical conference should notify the FRA Docket Clerk by mail or by e-mail by close of business on July 12, 2000. The notification of intent to participate should identify the organization, the person represents (if any), the names of all participants from that organization planning to participate, and a phone number at which the registrant can be reached. FRA reserves the right to limit active conference participation to those persons who have registered in advance.

(Authority: 49 U.S.C. 103, 20103-04, 20106-08, 20135 and 20701-03)

Issued in Washington, DC on May 9, 2000.

**George Gavalla,**

*Associate Administrator for Safety.*

[FR Doc. 00-12110 Filed 5-12-00; 8:45 am]

BILLING CODE 4910-06-P

## DEPARTMENT OF TRANSPORTATION

### Federal Railroad Administration

[Docket No. RSAC-96-1, Notice No. 20]

#### Railroad Safety Advisory Committee ("RSAC"); Working Group Activity Update

**AGENCY:** Federal Railroad Administration (FRA), Department of Transportation (DOT).

**ACTION:** Announcement of Railroad Safety Advisory Committee (RSAC) Working Group Activities.

**SUMMARY:** FRA is updating its announcement of RSAC's working group activities to reflect the current status of working group activities.

#### FOR FURTHER INFORMATION CONTACT:

Trish Paoletta, RSAC Coordinator, FRA, 1120 Vermont Ave, N.W., Mailstop 25, Washington, D.C. 20590, (202) 493-6212 or Grady Cothen, Deputy Associate Administrator for Safety Standards Program Development, FRA, 1120 Vermont Ave, N.W., Mailstop 25, Washington, D.C. 20590, (202) 493-6302.

**SUPPLEMENTARY INFORMATION:** This notice serves to update FRA's last announcement of working group activities and status reports on December 17, 1999 (64 FR 70756). The thirteenth full Committee meeting was held January 28, 2000. The next meeting of the full Committee is scheduled for May 19, 2000 at the Madison Hotel in Washington, D.C.

Since its first meeting in April of 1996, the RSAC has accepted sixteen tasks. Status for each of the tasks is provided below:

**Task 96-1—Revising the Freight Power Brake Regulations.** This Task was formally withdrawn from the RSAC on June 24, 1997. FRA published an NPRM on September 9, 1998, reflective of what FRA had learned through the collaborative process. Two public hearings were conducted and a technical conference was held. The date for submission of written comments was extended to March 1, 1999. FRA is preparing a final rule. Contact: Thomas Hermann (202) 493-6036.

**Task 96-2—Reviewing and recommending revisions to the Track Safety Standards (49 CFR Part 213).** This task was accepted April 2, 1996, and a Working Group was established. Consensus was reached on recommended revisions and an NPRM incorporating these recommendations was published in the **Federal Register** on July 3, 1997, (62 FR 36138). The final rule was published in the **Federal Register** on June 22, 1998 (63 FR 33991). The effective date of the rule was September 21, 1998. A task force was established to address Gage Restraint Measurement System (GRMS) technology applicability to the Track Safety Standards. A GRMS amendment to the Track Safety Standards is being prepared for presentation to the RSAC. Contact: Al MacDowell (202) 493-6236.

**Task 96-3—Reviewing and recommending revisions to the Radio Standards and Procedures (49 CFR Part 220).** This Task was accepted on April 2, 1996, and a Working Group was established. Consensus was reached on recommended revisions and an NPRM incorporating these recommendations was published in the **Federal Register** on June 26, 1997 (62 FR 34544). The

final rule was published on September 4, 1998 (63 FR 47182), and was effective on January 2, 1999. Contact: Gene Cox (202) 493-6319.

**Task 96-4—Reviewing the appropriateness of the agency's current policy regarding the applicability of existing and proposed regulations to tourist, excursion, scenic, and historic railroads.** This Task was accepted on April 2, 1996, and a Working Group was established. The Working Group monitored the steam locomotive regulations task. Contact: Grady Cothen (202) 493-6302.

**Task 96-5—Reviewing and recommending revisions to Steam Locomotive Inspection Standards (49 CFR Part 230).** This Task was assigned to the Tourist and Historic Working Group on July 24, 1996. Consensus was reached and an NPRM was published on September 25, 1998 (63 FR 51404). A public hearing was held on February 4, 1999, and recommendations were developed in response to comments received. The final rule was published on November 17, 1999 (64 FR 62828). Contact: George Scerbo (202) 493-6349.

**Task 96-6—Reviewing and recommending revisions to miscellaneous aspects of the regulations addressing Locomotive Engineer Certification (49 CFR Part 240).** This Task was accepted on October 31, 1996, and a Working Group was established. Consensus was reached and an NPRM was published on September 22, 1998. The Working Group met to resolve issues presented in public comments. The RSAC recommended issuance of a final rule with the Working Group modifications. The final rule was published November 8, 1999 (64 FR 60966). Contact: John Conklin (202) 493-6318.

**Task 96-7—Developing On-Track Equipment Safety Standards.** This task was assigned to the existing Track Standards Working Group on October 31, 1996, and a Task Force was established. The Task Force is finalizing a proposed rule to present to the RSAC for consideration. Contact: Al MacDowell (202) 493-6236.

**Task 96-8—This Planning Task** evaluated the need for action responsive to recommendations contained in a report to Congress entitled, *Locomotive Crashworthiness & Working Conditions*. This Planning Task was accepted on October 31, 1996. A Planning Group was formed and reviewed the report, grouping issues into categories.

**Task 97-1—Developing crashworthiness specifications to promote the integrity of the locomotive cab in accidents resulting from collisions.** This Task was accepted on



| Sunday            | Monday                             | Tuesday                      | Wednesday                    | Thursday                                      | Friday   | Saturday |
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| <b>May 2000</b>   |                                    |                              |                              |   |  |          |
| ASLRRR / Biloxi   | 1 Train Horn Hrng<br>- Berea, Ohio | 2                            | 3                            | 4 PTC D&I mtg<br>Conf Rm #1<br>Washington, DC | 5  | 6        |
| 7                 | 8                                  | 9                            | 10 HSGTA /<br>Phila.         | 11 HSGTA                                      | 12 HSGTA                                       | 13       |
| ASLRRR / Branson  |                                    |                              |                              |   |  |          |
| 14                | 15                                 | 16                           | 17                           | 18  | 19 RSAC Full<br>Committee<br>Mtg-Madison Hotel | 20       |
|                   |                                    |                              |                              |   |  |          |
| 21                | 22                                 | 23                           | 24                           | 25  | 26   | 27       |
|                   | BRS National<br>Negotiations       | BRS National<br>Negotiations | BRS National<br>Negotiations | BRS National<br>Negotiations                  | BRS National<br>Negotiations                   |          |
| ASLRRR / Dearborn |                                    |                              |                              |   |  |          |
| 28                | 29                                 | 30                           | 31                           |   |  |          |

| Sunday                           | Monday  | Tuesday   | Wednesday   | Thursday   | Friday  | Saturday  |
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| June 2000                        |   |   |   |  |   |   |
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| 4<br><br>ASLRRR /<br>Albuquerque | 5   | 6   | 7   | 8  | 9   | 10  |
| 11                               | 12  | 13  | 14  | 15   | 16  | 17  |
| 18                               | 19<br>Region 1Regional<br>Conference<br>Newport, RI | 20<br>Region 1Regional<br>Conference<br>Newport, RI | 21<br>Region 1Regional<br>Conference<br>Newport, RI | 22<br>Acc/Inc Rpt<br>Working Group<br>Conference Rm #1<br><br>Region 1Regional<br>Conference | 23<br>Region 1Regional<br>Conference<br>Newport, RI | 24<br>Region 1Regional<br>Conference<br>Newport, RI |
| 25                               | 26  | 27  | 28<br>PTC Standards<br>Task Force<br>Washington, DC | 29<br>PTC Working<br>Group<br>Washington, DC   | 30  |   |

| Sunday  | Monday  | Tuesday   | Wednesday   | Thursday                    | Friday                      | Saturday |
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| <b>July 2000</b>  |   |   |   |                             |                             | 1        |
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| 9   | 10  | 11  | 12  | 13                          | 14                          | 15       |
| 16  | 17  | 18  | 19<br>Remote Control<br>Locomotives Tech<br>Review Conference | 20                          | 21                          | 22       |
| 23<br>AAR Association<br>Superintendents<br>Norfolk, VA | 24 <sup>AAR</sup><br>Association<br>Superintendents<br>Norfolk, VA<br><br>RA Conference, AZ | 25 <sup>AAR</sup><br>Association<br>Superintendents<br>Norfolk, VA<br><br>RA Conference, AZ | 26<br><br>RA Conference, AZ                                   | 27<br><br>RA Conference, AZ | 28<br><br>RA Conference, AZ | 29       |
| 30  | 31  |   |   |                             |                             |          |

| Sunday             | Monday  | Tuesday   | Wednesday   | Thursday  | Friday  | Saturday |
|--------------------|---|---|---|---|---|----------|
| <b>August 2000</b> |   |   |   |   |   |          |
|                    |   | 1   | 2   | 3   | 4   | 5        |
| 6                  | 7   | 8   | 9   | 10  | 11  | 12       |
| 13                 | 14<br>Region 8<br>Regional Conf<br>Cavanaugh's Ridpath<br>Hotel Spokane, WA | 15<br>Region 8<br>Regional Conf<br>Cavanaugh's Ridpath<br>Hotel Spokane, WA | 16<br>Region 8<br>Regional Conf<br>Cavanaugh's Ridpath<br>Hotel Spokane, WA | 17<br>Region 8<br>Regional Conf<br>Cavanaugh's Ridpath<br>Hotel Spokane, WA | 18<br>Region 8<br>Regional Conf<br>Cavanaugh's Ridpath<br>Hotel Spokane, WA | 19       |
| 20                 | 21  | 22  | 23  | 24  | 25  | 26       |
| 27                 | 28<br>Region 7<br>Regional<br>Conference<br>San Diego, CA                   | 29<br>Region 7<br>Regional<br>Conference<br>San Diego, CA                   | 30<br>Region 7<br>Regional<br>Conference<br>San Diego, CA                   | 31<br>Region 7<br>Regional<br>Conference<br>San Diego, CA                   |   |          |

| Sunday  | Monday  | Tuesday   | Wednesday   | Thursday  | Friday                        | Saturday |
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| September 2000  |   |   |   |   |                               |          |
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| 10<br>AREMA/REMSA/<br>RSSI Dallas                         | 11<br>AREMA/REMSA/<br>RSSI Dallas                                   | 12<br>AREMA/REMSA/<br>RSSI Dallas                                   | 13  | 14  | 15                            | 16       |
| 17 <sub>Mech</sub><br>Association<br>Chicago              | 18 <sub>Mech</sub><br>Association<br>Chicago<br>Partnership Council | 19 <sub>Mech</sub><br>Association<br>Chicago<br>Partnership Council | 20 <sub>Mech</sub><br>Association<br>Chicago<br>Partnership Council | 21<br><br>Partnership Council                             | 22<br><br>Partnership Council | 23       |
| 24 <sub>APTA Annual</sub><br>Meeting<br>San Francisco, CA | 25 <sub>APTA Annual</sub><br>Meeting<br>San Francisco, CA           | 26 <sub>APTA Annual</sub><br>Meeting<br>San Francisco, CA           | 27 <sub>APTA Annual</sub><br>Meeting<br>San Francisco, CA           | 28 <sub>APTA Annual</sub><br>Meeting<br>San Francisco, CA | 29                            | 30       |

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| October 2000                   |                                |                                |           |          |        |          |
| 1<br>ASLRRRA Annual<br>Chicago | 2<br>ASLRRRA Annual<br>Chicago | 3<br>ASLRRRA Annual<br>Chicago | 4         | 5        | 6      | 7        |
| 8                              | 9                              | 10                             | 11        | 12       | 13     | 14       |
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| <b>November 2000</b> |                                     |                                     |                                     |                                     |                               |          |
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| 19                   | 20                                  | 21                                  | 22                                  | 23                                  | 24                            | 25       |
| 26                   | 27<br>RA Conference<br>Santa Fe, NM | 28<br>RA Conference<br>Santa Fe, NM | 29<br>RA Conference<br>Santa Fe, NM | 30<br>RA Conference<br>Santa Fe, NM | RA Conference<br>Santa Fe, NM |          |

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| December 2000 |        |         |           |          |                                    |          |
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| 10            | 11     | 12      | 13        | 14       | 15                                 | 16       |
| 17            | 18     | 19      | 20        | 21       | 22                                 | 23       |
| 24            | 25     | 26      | 27        | 28       | 29                                 | 30       |
| 31            |        |         |           |          |                                    |          |



development process. A series of public meetings will be held in the City of Conway. In addition, a public hearing will be held. The draft EIS will be available for public and agency review and comment prior to the public hearing.

To ensure that the full range of issues related to this proposed action are addressed and all significant issues identified, comments and suggestions are invited from all interested parties. Comments or questions concerning this proposed action and the EIS should be directed to the FHWA at the address provided above.

(Catalog of Federal Domestic Assistance Program Number 20.205, Highway Planning and Construction. The regulations implementing Executive Order 12372 regarding intergovernmental consultation of Federal programs and activities apply to this program.)

Issued on: May 3, 2000.

**Gary A. DalPorto,**

*Planning and Research Engineer, FHWA,  
Little Rock, Arkansas.*

[FR Doc. 00-11861 Filed 5-10-00; 8:45 am]

BILLING CODE 4910-22-M

## DEPARTMENT OF TRANSPORTATION

### Federal Highway Administration

#### Environmental Impact Statement: Tucker County, West Virginia

**AGENCY:** Federal Highway Administration (FHWA), DOT

**ACTION:** Notice of Intent.

**SUMMARY:** The FHWA is issuing this notice to advise the public that a Supplemental Environmental Impact Statement (SEIS) will be prepared for the Blackwater Avoidance area of the Thomas-to-Davis portion of the Parsons-to-Davis project of the proposed Appalachian Corridor H highway in Tucker County, West Virginia.

**FOR FURTHER INFORMATION CONTACT:** Henry E. Compton, Division Environmental Coordinator, Federal Highway Administration, West Virginia Division, Geary Plaza, Suite 200, 700 Washington Street East, Charleston, West Virginia, 25301, Telephone: (304) 347-5268.

**SUPPLEMENTARY INFORMATION:** In accordance with a court approved settlement agreement, the FHWA in cooperation with the West Virginia Department of Transportation (WVDOT) will prepare an SEIS to examine one or more potential alignment shifts for the Thomas-to-Davis section of Parsons-to-Davis project of the proposed Appalachian Corridor H highway in

Tucker County, West Virginia. A Record of Decision (ROD) for the entire Appalachian Corridor H highway (FHWA-WV-EIS-92-01-F) from Aggregates to the WV/VA state line, a distance of approximately 100 miles, was approved on August 2, 1996. The proposed Parsons-to-Davis project will provide a divided four-lane, partial control of access highway on new location for a distance of approximately 9 miles. The purpose of this project is to provide safe and efficient travel between population centers in Tucker County (Parsons Area and Thomas/Davis Area), while also contributing to the completion of Corridor H in West Virginia.

Alternates under consideration in the SEIS will be: (1) The no-action alternative, (2) the preferred alternative that was approved in the 1996 ROD, and (2) one or more alternatives that avoid the Blackwater Area identified in Exhibit 4 of the court approved Corridor H Settlement Agreement. Based on preliminary studies, it is expected that the avoidance alternatives considered in the SEIS will include one or more alignments that would shift the project to the north, resulting in additional connections to US 219, WV Route 32, and WV Route 93 in the vicinity of the towns of Thomas and Davis. However, final decisions on the scope of the SEIS will be made only after an opportunity for comment by interested agencies and the public during the scoping process, which will occur in May 2000.

Letters describing the proposed action and soliciting comments will be sent to appropriate federal, state, and local agencies, and to private organizations and citizens who have expressed or are known to have an interest in this proposal.

To ensure the full range of issues related to this proposed action are addressed and all significant issues identified, comments and suggestions are invited from all interested parties. Comments or questions concerning this proposed action should be directed to the FHWA at the address provided above.

(Catalog of Federal Domestic Assistance Program Number 20.205, Highway Research Planning and Construction. The regulations implementing Executive Order 12372 regarding intergovernmental consultation on Federal programs and activities apply to this program)

Issued on: May 2, 2000.

**Henry E. Compton,**

*Environmental Coordinator, Charleston, West Virginia.*

[FR Doc. 00-11860 Filed 5-10-00; 8:45 am]

BILLING CODE 4910-22-M

## DEPARTMENT OF TRANSPORTATION

### Federal Railroad Administration

[Docket Number FRA-1999-6364]

#### Northeast Illinois Railroad Corporation; Cancellation of Public Hearing

On April 4, 2000, the Federal Railroad Administration (FRA) published a notice in the **Federal Register** (65 FR 17704) announcing that a public hearing will be held based upon the Northeast Illinois Railroad Corporation's (Metra) request seeking a permanent waiver of compliance with the *Passenger Equipment Safety Standards*, 49 CFR part 238.303, which requires exterior calendar day inspection, and 238.313, which requires a class one brake test be performed by a qualified maintenance person. Metra has withdrawn its request; therefore, the hearing scheduled for Tuesday, May 16, 2000, in Chicago, Illinois, has been canceled.

FRA regrets any inconvenience occasioned by the cancellation of this hearing.

Issued in Washington, DC on May 8, 2000.

**Grady C. Cothen, Jr.,**

*Deputy Associate Administrator for Safety Standards and Program Development.*

[FR Doc. 00-11865 Filed 5-10-00; 8:45 am]

BILLING CODE 4910-06-P

## DEPARTMENT OF TRANSPORTATION

### Federal Railroad Administration

#### Notice of Safety Advisory 2000-1

**AGENCY:** Federal Railroad Administration (FRA), Department of Transportation (DOT).

**ACTION:** Notice of Safety Advisory.

**SUMMARY:** FRA is issuing Safety Advisory 2000-1 addressing safety concerns involving Model B1 relays, manufactured by General Railway Signal (GRS), between the years 1960 and 1985, and their potential to stick and remain in the energized position. ALSTOM Signaling, Inc., which has acquired GRS, estimates that approximately 2,000,000 relays are affected worldwide.

**FOR FURTHER INFORMATION CONTACT:** William E. Goodman, Staff Director, Signal and Train Control Division, Office of Safety Assurance and Compliance, FRA, 1120 Vermont Avenue, NW, RRS-13, Mail Stop 25, Washington, DC 20590 (telephone 202-493-6325) or Mark Tessler, Trial Attorney, Office of Chief Counsel, 1120 Vermont Avenue, NW, RCC-12, Mail

Stop 10, Washington, DC 20590 (telephone 202-493-6061).

**SUPPLEMENTARY INFORMATION:** In a Safety Notice issued on August 18, 1995, GRS stated that it had received reports of ten incidents of a residual screw in the armature of a Type B1 relay not releasing from the lower core head surface within the specified time. GRS stated that this condition could develop in any application using one or more B1 relays. FRA is concerned about potential malfunctions in such relays which are critical to signal systems and their impact on safety if they do not operate within specified parameters.

In its Safety Notice, GRS concluded that:

1. The condition arises from the transfer of material from the cadmium-tin plated core head to the copper-silicon residual screw, which can cause the residual screw to adhere to the core head.

2. Any B1 relay manufactured by GRS between January 1960 and December 1985 incorporating residual screw Part No. 20360-012-00 (Catalog No. P62-255) could develop this condition.

3. The condition is more likely to occur in B1 Relays normally in the energized position used in one or more of the following circumstances:

- a. High temperature, i.e. ambient temperatures above 100 degrees Fahrenheit (38 degrees Celsius) on a regular basis; and/or

- b. Number of operations of the B1 Relay is less than four (4) times per day.

In order to avoid this condition, GRS recommended that all B1 Relays manufactured between January 1960 and December 1985 incorporating screw Part No. 20360-012-00 should be modified by replacing the residual screw in accordance with instructions provided by GRS.

FRA has determined that the safety of railroad employees and the general public compels the issuance of this Safety Advisory. Occurrences of GRS B1 Type relay failures have caused FRA serious concern about the safety of certain relays. The relays of concern were first identified by General Railway Signal, now ALSTOM Signaling, in a Safety Notice issued August 18, 1995. Any B1 relay manufactured by GRS between January 1960 and December 1985 incorporating residual screw Part No. 20360-012-00 (Catalog No. P62-255) could develop the condition of concern. The condition arises from the transfer of material from the cadmium-tin plated core head to the copper-silicon residual screw, which can cause the residual screw to adhere to the core head, not allowing the armature to

release from the lower core head surface within the specified time. The GRS recommended corrective action was to clean the relays, replace the residual screw, and in some cases replace the relay cores and bracket.

In July of 1999, after B1 relay failures were reported on the signal system of Washington Metropolitan Area Transit Authority, the FRA notified the Association of American Railroads, the American Public Transit Association, and the American Short Line and Regional Railroad Association, making those associations aware of the potential safety issue and asking that they bring the matter to the attention of their members.

#### Recommended Action

Subsequent to the July 1999 industry notification, additional reports of B1 relay failures have been reported to FRA. Due to these reports FRA is issuing this Safety Advisory, to again make all users of B1 relays aware of the potential problem and its recognized solution. While FRA is not at this time requiring immediate inspection and repair or replacement of all such relays, FRA strongly recommends that railroads accelerate B1 relay inspection and testing programs so that all B1 relays have been inspected (and repaired or replaced, if necessary) as soon as possible. FRA further recommends that all inspection and testing forces be made aware of this problem and especially of the likelihood that the condition is more likely to occur in B1 relays normally in the energized position and used in high temperature on a regular basis, or in which the number of operations of the relay is less than four times per day. (See GRS Safety Notice.)

FRA notes that present railroad safety regulations at title 49 of the Code of Federal Regulations require periodic testing of each relay affecting the safety of train operations (49 CFR 236.106) and each relay affecting the proper functioning of grade crossing warning systems (49 CFR 234.263). FRA further notes that 49 CFR 236.11 and 234.207 require that when any essential component of a signal system or highway rail crossing warning system fails to perform its intended signaling function or is not in correspondence with known operating conditions, the cause shall be determined and the faulty component adjusted, repaired, or replaced without undue delay. Therefore, if the B1 relay fails to perform as intended, pursuant to §§ 236.11 and 234.207, it must be replaced.

Copies of the Safety Notice issued by GRS, will be made available through the Regional Signal & Train Control Specialist or through the Signal & Train Control Division at FRA Headquarters, at 202-493-6325.

Issued in Washington, DC on May 5, 2000.

**George Gavalla,**

*Associate Administrator for Safety.*

[FR Doc. 00-11866 Filed 5-10-00; 8:45 am]

BILLING CODE 4910-06-P

## DEPARTMENT OF THE TREASURY

### Submission for OMB Review; Comment Request

May 4, 2000.

The Department of Treasury has submitted the following public information collection requirement(s) to OMB for review and clearance under the Paperwork Reduction Act of 1995, Public Law 104-13. Copies of the submission(s) may be obtained by calling the Treasury Bureau Clearance Officer listed. Comments regarding this information collection should be addressed to the OMB reviewer listed and to the Treasury Department Clearance Officer, Department of the Treasury, Room 2110, 1425 New York Avenue, NW., Washington, DC 20220.

**DATES:** Written comments should be received on or before June 12, 2000 to be assured of consideration.

#### Internal Revenue Service (IRS)

**OMB Number:** 1545-0805.

**Form Number:** IRS Form 5472.

**Type of Review:** Extension.

**Title:** Information Return of a 25% Foreign-Owned U.S. Corporation or a Foreign Corporation or a Foreign Corporation Engaged in a U.S. Trade or Business.

**Description:** Form 5472 is used to report information transactions between a U.S. corporation that is 25% foreign owned or a foreign corporation that is engaged in a U.S. trade or business and related foreign parties. The IRA uses Form 5472 to determine if inventory or other costs deducted by the U.S. or foreign corporation are correct.

**Respondents:** Business or other for-profit.

**Estimated Number of Respondents/Recordkeepers:** 75,000.

**Estimated Burden Hours Per Respondent/Recordkeeper:**

Recordkeeping—17 hr., 42 min.

Learning about the law or the form—3 hr., 5 min.

Preparing and sending the form to the IRS—3 hr., 30 min.

**Frequency of Response:** Annually.



U.S. Department  
of Transportation

Federal Railroad  
Administration

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## **REPORT TO COMMITTEES OF THE CONGRESS**

# **BRIDGE DISPLACEMENT DETECTION SYSTEMS**

## **Executive Summary**

The overall risk of damage to rail bridges is small in relation to other risks in railroad operations and is diffused over a large number of bridges. The Federal Railroad Administration (FRA) has documented bridge ownership over navigable waterways, so that immediate notification can be made to the owners in the case of impacts by vessels. Where risk is known to be significantly above average due to heavy river traffic, the U.S. Coast Guard is working with bridge owners to implement protective countermeasures. Movable bridges are attended by railroad personnel, who are equipped to notify trains through use of signal systems, radios, or both, should the bridge be compromised.

Thousands of additional railroad bridges remain subject to a very small, but real risk of damage due to forces such as fires, flash floods, impacts associated with roadway underpasses, and similar hazards. Where costs were not excessive, railroads have responded to site-specific needs by installing hazard detection systems. However, extensive use of such systems is limited by their inherent costs, including the repeated disruptions associated with false warnings. Because the cost of providing power and interface with signal and communications systems constitutes the largest part of the cost associated with these systems, and because several detectors may be required on a single bridge to address the particular safety concern(s), future reductions in the cost of electronic systems are not likely to entirely eliminate the barriers to more extensive use of these systems.

However, innovative uses of technology, integrated into more capable train control systems, can result in selective enhancements to hazard detection on railroad bridges. FRA will seek opportunities to encourage implementation of these enhancements.

## **Introduction**

Section 207 of the Federal Railroad Safety Authorization Act of 1994 requires that: "... the Secretary of Transportation shall transmit to the Committee on Commerce, Science and Transportation of the Senate and the Committee on Energy and Commerce of the House of Representatives<sup>1</sup> a report concerning any action that has been taken by the Secretary on railroad bridge displacement detection systems" (49 U.S.C. § 20145). This is the requested report. It covers the period 1994 to the present.

The lead role in producing this report to Congress was assigned to the Federal Railroad Administration (FRA). FRA immediately arranged for a survey of railroad bridge safety and an assessment of possible methods to detect damage to railroad bridges following impact by non-railroad vehicles, automotive, marine or airborne. Entitled "Overview of Railroad Bridges and Assessment of Methods to Monitor Railroad Bridge Integrity," this technical study was completed in 1994. The technical report, which has previously been published and provided to committee staff, is attached for ready reference. The findings of this investigation are presented in summary form here, and subsequent developments are described.

## **Displacement and Other Threats to Bridge Safety**

The problem of bridge displacement was injected into the public debate largely as a result of the derailment of Amtrak's train, the Sunset Limited, near Mobile, Alabama on September 22, 1993. The derailment was caused by the lateral displacement of the track structure on a CSX Transportation bridge over Big Bayou Canot. One span of the bridge had been knocked out of proper alignment by the impact of a barge tow operating in heavy fog in an area not normally employed for commercial navigation. The derailment resulted in 47 fatalities, including 5 crewmembers and 42 passengers, most from drowning. It was the worst train accident in Amtrak's history.

Some bridges are also vulnerable to damage from motor vehicles. The most notable recent accident from this cause occurred in Sheperdsville, Kentucky on November 19, 1991, when a truck hauling solid waste struck a small beam span bridge over a local road, displacing the bridge and its track and consequently derailing a freight train. The derailed train continued onto a large through-truss bridge over the Salt River and knocked down two of the three spans of that bridge. Several cars of hazardous materials went into the river and the area was evacuated for several days during restoration operations.

Natural forces can also threaten bridge integrity. For instance, Amtrak's Southwest Chief derailed on the Burlington Northern Santa Fe Railway near Kingman, Arizona on August 9, 1997 after passing over a damaged timber-framed bent bridge (one of approximately 250 such bridges.

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<sup>1</sup>The Committee on Transportation and Infrastructure subsequently succeeded to jurisdiction over railroad safety matters.

A flash flood resulting from a large summer storm had washed away the ground under the bridge's supporting structure. Ten Amtrak employees and 173 passengers were injured.

These events, although extraordinary in relation to normal operational hazards experienced on America's railroads, called attention to the problem of damage to bridges caused by factors outside of the railroads' control. In order to obtain adequate perspective and evaluate the benefits that might be realized from use of a variety of damage detection technologies, FRA elected to review a variety of hazards and countermeasures related to externally-caused damage, including fire, flood, ice, and earthquakes, as well as other damage incurred due to impacts by other transportation vehicles. Concerns include general weakening of bridge structure and damage to, or undermining of, structural supports, in addition to lateral displacement.

Clearly, detecting damage once it is done is not the ideal approach to prevention of catastrophic events, particularly since such events could never be wholly excluded by detection technology. The Department of Transportation also promotes safe marine and highway operations, reducing the likelihood that impacts with bridges will occur. FRA's Track Safety Standards also require special inspections following serious storms and other natural events that might threaten the track structure (49 CFR §213.239).

By virtue of their design and placement on navigable waters, movable railroad bridges are perhaps most vulnerable to damage. These bridges are generally monitored by a bridge attendant who is equipped to communicate with trains by VHF radio. These bridges have generally been protected to the extent possible by fenders, and other measures. This report does not address the issue of special track work required for proper functioning of movable bridges.<sup>2</sup> FRA has addressed this issue through a separate inspection program for these bridges and through new inspection requirements contained in recent revisions to the Track Safety Standards (63 FR 33992, 34012, 34041; June 22, 1998).

## **Results of the Technical Study**

The bridge integrity technical study was completed and a final report issued in June 1994. The report covers several areas including evaluation of the risks or hazards faced by railroad bridges and the technologies available to monitor bridge condition and alignment. It discusses operational issues related to bridge integrity monitors, and predicts costs to install monitors on three hypothetical bridges typical of those found on most railroads.

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<sup>2</sup>A derailment of an Amtrak passenger train at the far end of a movable bridge over the Hacksensack River near Secausus, New Jersey, on November 23, 1996, was caused by a break in a specially-configured rail ("miter rail") at the junction of the movable span and the fixed span. A switch circuit controller designed to detect the position of the miter rail failed to function as intended due the break in the miter rail itself. The bridge structure itself was unimpaired.

The report notes that the FRA bridge survey revealed a population of approximately 100,900 railroad bridges of all types with an average length of 120 feet. The actual number of railroad accidents attributed to bridge misalignment or failure was found to be very small, on the order of two per year, or 1/1000th of the total railroad accidents. This low failure rate was attributed to the periodic inspection programs used by the railroads and to the conservative design standards and construction practices commonly used for railroad bridges.

In the study, a generic railroad bridge accident model was developed including an initiating cause, the effects of the initiating cause on the bridge, the failure progression, and the final failure mode of the bridge. Initiating causes included those from natural and operational reasons. These causes were examined for associated physical conditions that might lend themselves to detection. These conditions include acoustic emission, light emission, temperature change, vibration, impact, movement, stress, change of shape, lack of continuity, and intrusion of objects.

A total of eighteen different technologies were compared for their advantages, disadvantages, cost, performance in detecting the effects, and likelihood of false alarms. The study concluded that track circuits used for control of railroad signal systems provide little probability of detecting bridge misalignments or damage short of collapse on bridges carrying continuous welded rail.

The key to obtaining real benefits from bridge integrity monitor systems is providing a warning to train crews. The most likely method of warning crews is through an interface to the wayside signal system, if the bridge is in signaled territory. This interface however, introduces additional requirements on the bridge monitor system so that the integrity of the wayside signal system is not degraded by the interface. If bridge monitors are interfaced with the wayside signal system, failures of the bridge monitor system will cause the signal system to display the most restrictive aspect. The necessity to stop trains and inspect both the bridge and the bridge monitor system before proceeding may cause large cost and operational impacts to the railroad if there are a large number of false alarms. Therefore, the bridge monitor system must be extremely reliable and able to discriminate between real hazards and false alarms to a very high degree.

The base cost to install bridge integrity monitors on one bridge was estimated to range between \$24,000 and \$40,000. This cost includes the basic items needed at every installation, including a commercial or remote electric power supply, connections to the signal system, and housing for the basic apparatus. In addition, costs that vary with the length of the bridge, particularly the application of instrumentation to the bridge itself, were estimated at approximately \$9.00 per foot of bridge length.

The life cycle costs over an estimated 25-year useful life of the monitoring system were estimated at \$40,000 to \$54,000 base cost per bridge, plus approximately \$18.00 per foot of bridge length. Applying these costs over the U.S. railroad bridge population provides an estimated life cycle cost to install and maintain these monitors ranging between \$4.7 billion and \$5.8 billion.

The report concludes that, even if all railroad bridges could be ranked by vulnerability and the top ten percent selected for installation of monitoring systems, the estimated life cycle cost of \$469-\$580 million for those bridges would be several times the projected accident cost of \$14.7 million over the same 25-year period.

Nevertheless, the bridge integrity technical report describes a range of new technologies that may offer some promise for improved detection systems in the future. To the extent these systems can be engineered to be reliable and inexpensive, they may warrant more extensive use, particularly if concerns regarding provision of power and communication of alarms are addressed.

Hazard detectors of all kinds, including bridge integrity systems, may be rendered somewhat more effective if tied into a Positive Train Control (PTC) system that is designed to provide priority to emergency messages and that provides a communication path for periodic health monitoring for the device (potentially holding down inspection and maintenance costs). However, the relative effectiveness of hazard detection in the context of PTC will be determined in part by "message latency" – the amount of delay that occurs as data is processed through data links to the computer on-board the locomotive. Further, deployment of PTC will not solve the inherent problem that hazard detection systems are costly. A recent report of the Railroad Safety Advisory Committee estimated 20-year costs for a high-end PTC system, applied to the lines of the major railroads and enhanced with a significant array of hazard detection appliances, at \$7.8 billion. Safety benefits for the same period were estimated at approximately \$844 million, representing the prevention of a significant number of train collisions, derailments, and other accidents, including events for which prevention is questionable. (*Implementation of Positive Train Control* [September 8, 1999]). Like the results of the 1994 technical report, this finding emphasizes the need to employ a balanced approach to bridge integrity, including sound design, protection of piers and other exposed members, and use of all available means to report known damage promptly, as well as selective use of technology to detect and signal damage when it occurs.

## Other Approaches to Risk Mitigation

Detecting all bridge impacts that could threaten structural integrity would require instrumenting a large number of bridges, inspecting and maintaining a whole new class of infrastructure, and dealing with significant numbers of false alarms even with use of the best available technology. At the same time, detection of threats to bridge integrity could not result in completely effective prevention measures, since a train approaching a bridge at the time the damage occurred could not stop short in many cases, even with the most timely information. Further, detection of bridge damage quite obviously does not prevent it. With the best damage detection systems, there would still be significant economic cost from halting of rail operations (and perhaps marine or highway operations) while repairs are made to the structure. As a result, a large part of the effort historically devoted to this area of risk has focused on measures to prevent bridge impacts and to prevent bridge impacts from damaging bridge structures.



In September 1994, the National Transportation Safety Board (NTSB) sent four bridge-related recommendations to the Secretary of Transportation, two of which concerned this issue of vulnerability of railroad bridges to impacts or, put another way, the assignment of risk of impact to specific structures. In condensed form these were:

- To convene an intermodal task force to develop a standard methodology for determining the vulnerability of the nation's highway and railroad bridges to collisions from marine vessels, to formulate a ranking system for identifying bridges at greatest risk and to provide guidance on the effectiveness and appropriateness of protective measures.
- Use the methodology developed by the intermodal task force to carry out a national risk assessment program for the nation's railroad . . . bridges.

In connection with the first recommendation, it should be noted that between 1982, when FRA started to accumulate relevant data, and 1998, there were six train accidents attributable to impact-misaligned railroad bridges: five were caused by motor vehicles and one by a marine vessel.

The intermodal task force was formed and adopted a risk assessment methodology responsive to the NTSB's recommendations. Each mode proceeded on its individual assignments and, in March 1995, then Secretary of Transportation Federico Peña provided a detailed report to the NTSB regarding the risk assessment methodology. The risk assessment methodology adopted is basically described in the National Research Council's report entitled *Ship Collisions With Bridges* and in publication of the American Association of State Highway and Transportation Officials entitled *Guide Specification and Commentary for Vessel Collision Design of Highway Bridges* (February 1991).

The risk assessment methodology resulting from the intermodal task force's work specifically applies to bridge projects at the planning and design stages, so that vulnerability to vessel collision can be reduced and minimized before the bridge project advances to the construction stage. This consideration is generally a bridge owner's responsibility that occurs prior to a Coast Guard bridge construction permit approval action is taken. At the time of Coast Guard review and coordination, the Coast Guard conducts further risk assessment through the bridge permit process. This process includes consideration of the potential impact that location and design will have on the safety of both land and marine traffic. Pier locations are evaluated with respect to the navigation channel through the bridge, adequacy of the proposed horizontal and vertical clearances to allow transit of existing and potential marine vessels, and the need for pier protection fendering and navigational lighting systems and other markings, clearances, and gauges.

Basic factors considered in the assessments for proposed and existing bridges include the vessel, the waterway, and vessel-waterway interaction as well as the bridge itself. Some of the specific factors considered are the size, speed, loading and type of vessel; waterway and

navigable channel geometry; water depths; environmental conditions; and bridge geometry and structural response.

Improvements have been made as a result of the assessments that have been conducted by the Coast Guard. For example, after the Amtrak accident in Mobile, Alabama, the Coast Guard completed a three-year national bridge survey of 10,000 existing highway and railroad bridges which were potentially vulnerable to damage by commercial vessel traffic. This vulnerability risk assessment focused upon the need for new or enhanced pier protection fendering and lighting systems. Out of the 121 bridges found to be potentially vulnerable, 83 have been upgraded with new or enhanced fendering and lighting systems to date. Owners of the remaining 38 structures are currently planning and budgeting projects to complete similar upgrades.

Railroad bridge owners currently have available the needed guidance for the performance of risk assessments, found in the recommended practices included in Chapter 8 of the *Manual for Railway Engineering* of the American Railway Engineering and Maintenance Association. This information has been used by the railroad industry for at least 10 years for developing and designing protection for railroad bridges over navigable waterways.

FRA has also compiled a list of railroad bridges over navigable waterways of the United States. This list includes the identification of the individual bridge, the owner and operator of the track on the bridge, and the location of the bridge in relation to waterway mileage, railroad mileage, and geographic coordinates. The list for each state is being made available to emergency response agencies in that state, and to the Coast Guard operational components that are concerned with marine safety and response to marine incidents.

On October 27, 1998, Chairman Jim Hall of the NTSB wrote the Secretary classifying the Board's recommendations "Closed-Acceptable Alternative Action."

## Future Directions

Given the large number of railroad bridges, the conduct of over 600 million train miles of transportation service each year, and the very small number of incidents that occur involving rail bridges, the risk that external factors will compromise the integrity of the average railroad bridge is very low. The bridges most at risk for damage generally require special attention to prevent damage, normally through clear marking of the bridges and the use of fenders, rip-rap, or other protective structures to prevent serious damage. Current efforts by the U.S. Coast Guard and the railroads to address high risk locations should be handled to completion, and FRA will work with the Coast Guard to periodically update bridge ownership information—both to facilitate preventive action and emergency notification.

Attention to railroad structures over highway bridges is also warranted. This issue is difficult, because most roadways under railroad bridges that involve low clearances are on State, county and local roads. In some cases, rail structures were built before current clearance

standards were established. In other cases, roadway authorities have reduced clearances by increasing pavement thickness. Determining which of the several thousand roadways that pass under railroad bridges currently present special risk is difficult, at best. Highway authorities can work to ensure that clearances are appropriate, checking for adequacy whenever road work is performed and verifying posted information. State and local authorities responsible for regulating motor vehicles should work to ensure that vehicles with tall loads are routed around vulnerable rail overpasses.

Only in very limited circumstances have railroads found it useful to install damage detection devices on, or proximate to, bridges. Examples include high-water detectors, fire detection systems, and a very small number of bridge alignment systems. To be effective, some of these systems must be installed on each span of a multiple-span bridge and may be subject to damage by birds, other small animals and vandals. Given the cost of providing power to operate detection devices, interfacing those devices with signal systems and other means of communication, conducting inspection and maintenance, and responding to false activations, making this option attractive in the future will be difficult. Nevertheless, FRA will seek opportunities to integrate demonstration of appropriate hazard detection technology into future rail projects involving Federal participation. In addition, as this report was prepared, FRA had participated in ongoing, open solicitations under the Transportation Research Board "IDEA" program (Innovations Deserving Exploratory Analysis) and FRA's Next Generation High-Speed Rail Broad Agency Announcement. These solicitations actively seek and can fund new sensor technologies with potential applications related to railroad bridge integrity.

## **RAILROAD SAFETY ADVISORY COMMITTEE (RSAC)**

The **RSAC** is holding its fourteenth full Committee meeting on May 19, 2000. The following is a review of RSAC initiatives to date:

**Revision of Freight Power Brake Regulations** - The 1992 Rail Safety Enforcement and Review Act of 1992 required FRA to revise the power brake regulations. FRA did complete the portion of the rule involving two-way end-of-train devices (EOTs) and it became effective on July 1, 1997. FRA published a Notice of Proposed Rulemaking (NPRM) on September 16, 1994, and conducted six days of public hearings. Additional options were requested from passenger interests and freight interests. Passenger power brake provisions were included in the Passenger Equipment Standards NPRM published September 23, 1997, and a final rule is in preparation. Revision of the freight power brake regulations was tasked to RSAC on April 1, 1996. After a period of over a year of intense efforts, a consensus between railroad labor and management could not be reached on several contentious issues. FRA formally withdrew the freight power brake task at the June 24, 1997, RSAC meeting. FRA published an NPRM on September 9, 1998, reflective of what FRA has learned through the collaborative process. Public hearings were conducted on October 26, 1998, in Kansas City, Missouri, and on November 13, 1998, in Washington, DC. A technical conference was held in Walnut Creek, California, November 23-24, 1998. The final date for the submission of written comments was extended to March 1, 1999. A public meeting to discuss FRA's collection of inspection data was conducted on May 27, 1999. FRA is preparing the final rule.

**Revision of Track Safety Standards** - The 1992 safety authorization act required FRA to issue revised track rules. FRA published an Advanced Notice of Proposed Rulemaking (ANPRM) on November 6, 1992, and conducted workshops during the period January-March 1993. The RSAC accepted the task of preparing an NPRM on April 2, 1996. In November 1996, the RSAC voted to recommend issuance of the NPRM and FRA published an NPRM on July 3, 1997. A public hearing was held on September 4, 1997, with comments due by December 22, 1997. The final rule was published on June 22, 1998. The effective date of the rule was September 21, 1998.

Although the subject of much discussion, the Track Safety Working Group could not reach consensus about how the revised Track Safety Standards should address GRMS technology. The RSAC therefore recommended that a small task group continue evaluating the possibility of developing GRMS standards for broader application within the industry. The task group drafted a standard providing for the use of this technology within the industry and FRA has prepared an amendment to the final track rule providing for the use of GRMS technology. A

package containing the proposed GRMS amendment and the proposed Safety Standards for Roadway Maintenance Machines is being prepared and will be sent to the Track Working Group for a mail ballot.

**Railroad Communications** - FRA, in submitting a report to Congress on Railroad Communications and Train Control on July 13, 1994, noted the need to revise existing Federal standards for radio communications in concert with railroads and employee representatives. The RSAC accepted the task of preparing an NPRM, including consideration of communication capabilities required in railroad operations, on April 1, 1996. The RSAC voted to recommend issuance of an NPRM. The NPRM was published on June 11, 1997. A final rule was published on September 4, 1998, and became effective on January 2, 1999.

**Tourist, Excursion, Scenic and Historic Service** - The Swift Railroad Development Act of 1994 required FRA to submit a report to Congress regarding FRA's actions to recognize the unique factors associated with these generally small passenger operations that often utilize historic equipment. The report was submitted to the Congress on June 10, 1996. The RSAC authorized formation of a Working Group on Tourist and Historic Railroads on April 1, 1996, to promote the safe operation of tourist and historic rail operations. The Working Group has been monitoring completion of the steam locomotive regulations task and will continue its oversight of task force activities, including the proposed development of requirements for the training of steam locomotive operators and maintenance personnel. It is expected that future working group efforts will involve the review of the applicability of other regulations, such as track safety, emergency preparedness, and passenger equipment safety standards to tourist, scenic and historical railroad operations.

**Revision of Steam-Powered Locomotive Inspection Standards** - A committee of steam locomotive experts from tourist and historic railroads have sought a partnership with FRA to revise the steam locomotive regulations. Revision of the regulations was tasked to the RSAC on July 24, 1996. The Tourist and Historic Railroads Working Group created a Steam Task Force to address this task. The full Committee voted to recommend issuance of an NPRM. The NPRM was published in the Federal Register on September 25, 1998. A public hearing was held on February 4, 1999. The Task Force's recommendations in response to the comments received were accepted by the Working Group and the full Committee voted to incorporate the recommendations in the final rule. The final rule was published on November 17, 1999, and became effective January 18, 2000.

**Revision of Qualification and Certification of Locomotive Engineer Regulations** - The final rule for locomotive engineer certification became

effective in 1991, but certain issues were left unresolved. Experience under the rule has also raised additional issues. An interim final rule amendment was published on October 12, 1995. The RSAC accepted a task to revise the regulations on October 31, 1996. The full Committee voted at the May 14, 1998, meeting to recommend issuance of the NPRM forwarded by the Working Group. An NPRM was published in the Federal Register on September 22, 1998. The Working Group has met to resolve issues presented in the public comments. At the January 28, 1999, meeting, the RSAC recommended issuance of a final rule with the Working Group modifications. The final rule was published on November 8, 1999.

**Safety Standards for Roadway Maintenance Machines** - During deliberations of the Working Group on Track Safety Standards, the issue of proposing standards relating to the safety of persons riding or operating maintenance-of-way equipment was raised. On October 31, 1996, the RSAC accepted a task of drafting proposed rules for safety of this equipment. A Task Force was formed to address the issue and the Task Force reached a consensus agreement in principle on what should be included in the proposed rule. At their last meeting, the Task Force identified several remaining issues to be resolved. In addition, the Task Force recognized the need to coordinate with the Locomotive Cab Conditions Working Group to ensure that standards for noise and air temperature (for enclosed cabs only) for new equipment employ a rationale that is reasonably consistent with the technical approach being employed for locomotive cabs. (Note: actual standards are expected to differ in important respects, recognizing the differences in the working conditions and functions involved.) The Task Force has since reached a consensus agreement on what should be included in the proposed rule. FRA has taken the work of the Task Force and drafted a proposed rule addressing Safety Standards for Roadway Maintenance Machines. A package containing the proposed Safety Standards for Roadway Maintenance Machines and the proposed GRMS amendment is being prepared and will be sent to the Track Working Group for a mail ballot.

**Locomotive Crashworthiness and Working Conditions Planning Task** - The Rail Safety Enforcement and Review Act of 1992 required FRA to conduct a proceeding regarding locomotive crashworthiness and working conditions and issue regulations or submit a report. FRA conducted research, outreach, and a survey of locomotive conditions and finalized a report to the Congress entitled *Locomotive Crashworthiness & Working Conditions*, transmitted by letter of September 18, 1996. The report conveyed data and information developed by FRA to date, closed out those areas of investigation for which further action is not warranted, and defined issues that should be pursued further in concert with industry parties, either for voluntary or regulatory action. The RSAC accepted a planning task on October 31, 1996, to evaluate the need for action responsive to

recommendations contained in the report. A Planning Group reviewed the report and grouped issues into categories. FRA presented a task statement addressing locomotive crashworthiness and a task statement addressing cab working conditions to the RSAC on June 24, 1997.

**Locomotive Crashworthiness** - On June 24, 1997, the RSAC voted to accept a task addressing locomotive crashworthiness issues. The Working Group on Locomotive Crashworthiness established a Task Force on engineering issues that reviewed collision history and design options. The Working Group reviewed the results of research that was commissioned and is drafting standards for freight and passenger locomotives to present to the RSAC for consideration.

**Locomotive Cab Working Conditions** - On June 24, 1997, the RSAC voted to accept a task addressing cab working conditions issues. The Working Group on Locomotive Cab Working Conditions established task forces on noise and temperature. The full Working Group met several times to develop recommendations for locomotive sanitation standards. A draft sanitation document is under review by the Working Group. The Noise Task Force met several times and FRA is preparing a draft document for Working Group approval regarding noise exposure requirements to be presented to the RSAC.

**Revision of Event Recorder Requirements** - In issuing final rules for event recorders which became effective May 5, 1995, FRA noted the need to provide more refined technical standards. The National Transportation Safety Board (NTSB) noted the loss of data from event recorders in several accidents due to fire, water and mechanical damage. NTSB proposed performance standards and agreed to serve as co-chair for an industry/government working group that would define technical standards for next-generation railroad event recorders. FRA conducted a meeting of an informal working group comprised of railroad labor and management and co-chaired by NTSB on December 7, 1995, to consider development of technical standards. At the July 24-25, 1996, RSAC meeting, the Association of American Railroads (AAR) agreed to continue the inquiry and on November 1, 1996, reported the status of work on proposed industry standards to the RSAC. On March 5, 1997, the NTSB issued recommendations regarding testing and maintenance of event recorders as a result of finding in the investigation of an accident on February 1, 1996, at Cajon Pass, California. On March 24, 1997, the RSAC indicated its desire to receive a task to consider the NTSB recommendations with respect to crash survivability, testing and maintenance. A task was presented to, and accepted by, the RSAC on June 24, 1997. The Working Group on Event Recorders was formed and a Task Force established. The Working Group and Task Force have conducted meetings and a draft proposed rule is being reviewed.

**Positive Train Control (PTC) Systems** - On September 30, 1997, the RSAC accepted three tasks involving defining PTC functionalities, describing available technologies, evaluating costs and benefit of potential systems, and considering implementation opportunities and challenges, including demonstration and deployment. Accomplishments of the PTC Working Group to date include the following:

**Report to the Administrator / Report to the Congress:** The Swift Rail Development Act of 1994 required FRA to submit a status report on the implementation of positive train control as a follow-up to the July 1994 report entitled *Railroad Communications and Train Control*. The Data and Implementation Task Force of the PTC Working Group prepared a Report to the Administrator entitled *Implementation of Positive Train Control Systems* which was approved by the full committee on September 8, 1999. This RSAC report has been widely disseminated, and FRA has referred to its findings and recommendations in responses to questions from the Congress over the past few months. FRA recently obtained clearance of a letter report to the Congress which encloses the RSAC PTC report, and that letter report was signed by the Administrator on May 17, 2000.

**Notice of Proposed Rulemaking for Performance Standards:** The Standards Task Force has been working intensively to prepare an NPRM on performance standards for processor-based signal and train control systems. The Task Force will hold a final meeting on the NPRM on June 28<sup>th</sup>, and the full PTC Working Group will consider the NPRM on June 29<sup>th</sup>. The Administrator has asked for early publication of this proposal, which will lay the groundwork for innovative train control technologies. The North American Joint PTC Project team has also asked that this work be expedited.

The working group has also established teams dealing with PTC-related operation rules and human factors issues, as well a team assisting in the development of an Axiomatic Safety-Critical Assessment Process (ASCAP) designed to provide a risk assessment toolkit for use in applying new performance-based standards.

**Definition of Reportable "Train Accident"** - FRA identified the need to comprehensively revise the regulations governing accident/incident reporting, which had not been revised since 1974. FRA issued an NPRM on August 19, 1994, and a final rule on May 30, 1996. Technical amendments were published on November 22, 1996, and the FRA Administrator signed final rule amendments on December 16, 1996. The final rule became effective on January 1, 1997. On June 24, 1997, the RSAC reviewed a request by an RSAC member to clarify the



means used by railroads to estimate railroad property damage and improve the consistency of reporting. The RSAC accepted the task on September 30, 1997, limited to determination of damages qualifying an event as a reportable train accident. A Working Group was formed, held its initial meeting in February 1999, and has been conducting meetings to address this task.

**Blue Signal Protection** - On 8/16/93, FRA published a final rule permitting one or more utility employees to associate themselves with a train crew for the purpose of performing normal operating functions that require employees to go on, under or between rolling stock, without use of blue signal protection (which is ordinarily appropriate for mechanical duties). During the proceeding it was noted that rules for locomotive engineers working alone were not clearly defined. FRA published a final rule amendment governing single engineers working alone on 3/1/95, but granted a requested suspension of the amendment on 6/9/95 pending development of additional facts. Since that time, additional blue signal issues have continued to emerge, including application of the requirements to contractors performing the subject functions on railroad property. On 10/31/96, the RSAC advised FRA that this project should not be proposed for early tasking, given conflicting demands on the resources of member organizations. RSAC accepted the task at the 1/28/00 full Committee meeting. A working group is being formed.



U.S. Department  
of Transportation

Federal Railroad  
Administration

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# **Overview of the Railroad Safety Regulatory Program and Standards-Related Partnership Efforts**

**May 18, 2000**

## **Legend:**

**ANPRM**     **Advance Notice of Proposed Rulemaking**

*Italics*     *Indicates project has been identified for development  
through the Railroad Safety Advisory Committee or a  
similar forum for collaborative rulemaking*

**NPRM**     **Notice of Proposed Rulemaking**

**RSAC**     **Railroad Safety Advisory Committee**

**SACP**     **Safety Assurance and Compliance Program**

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**NOTE:**

**Centralized Docket Management System** - Dockets established after October 7, 1998, are available on the DOT Centralized Docket Management System facility and can be accessed over the Internet (<http://dms.dot.gov>). Detailed information is available at the Web site to assist in viewing documents.

**Revised Docket Filing Procedures for FRA Rulemaking and Adjudicatory Dockets** - Final Rule (64 FR 70193) - This final rule amends certain FRA rules to provide accurate information to the public regarding filing requirements for FRA proceedings. The final rule is effective 2/14/00.

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## SUMMARY OF CONSENSUS RULEMAKING EFFORTS

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**Roadway Worker Safety.** Consensus achieved in formal negotiated rulemaking; final rule published 12/16/96; effective 1/15/97. Denial of AAR and APTA petitions for reconsideration published 4/21/97.

**Passenger Equipment Safety Standards.** NPRM based on working group recommendations was published 9/23/97. Public hearing held 11/21/97. Written comments were due 11/24/97. Working group met 12/15-12/16/97 (general issues) and 1/6/98 (intercity and high speed issues). **Final rule published 5/12/99 (64 FR 25540).**

**Passenger Train Emergency Preparedness.** NPRM based on working group recommendations was published 2/24/97 with significant additions, and a notice of public hearings was published 3/6/97. Public hearings were held in Chicago on 4/4/97 and in New York City on 4/7/97. Written comments were due by 4/25/97. Working group met 8/28/97 and reached agreement in principle on changes for incorporation into the final rule. **Final rule published 5/4/98 (63 FR 24630).**

### **Railroad Safety Advisory Committee:**

Last full Committee meeting 1/28/2000

Last RSAC Working Group Activity Update published in Federal Register 12/17/99 (64 FR 707656).

| <u><b>Task No.</b></u> | <u><b>Subject</b></u>                              | <u><b>Status</b></u>   |
|------------------------|--|--|
| 96-1                   | Power Brake Regulations, freight, general revision | Working group charter extended to 1/15/97 to produce NPRM; impasse reached at 12/4/96 meeting, and subsequent efforts to renew talks were not successful. FRA withdrew task at 6/24/97 meeting. FRA published second NPRM 9/9/98 (63 FR 48294) reflective of what FRA has learned through the collaborative process. Public hearings 10/26/98 and 11/13/98; technical conference 11/23-24/98. Submission of written comments date due extended to 3/1/99. Public meeting 5/27/99 on FRA MPE database. Final rule is in review and clearance within the Executive Branch. |

|      |  |   |
|------|--|---|
| 96-2 | Track Safety Standards,<br>general revision  | Consensus achieved; in balloting that concluded 11/21/96, RSAC voted to accept working group report and recommend NPRM. NPRM published 7/3/97; public hearing held 9/4/97; comment period closed 9/15/97. <b>Final rule published 6/22/98; effective 9/21/98.</b> FRA prepared final rule amendment on Gage Restraint Measurement System (GRMS) standards. As this Overview was being prepared, the final rule amendment was being finalized for circulation to the working group for concurrence together with the NPRM on Roadway Maintenance Machines. |
| 96-3 | Railroad Communications<br>(including revision of Radio<br>Standards and Procedures) | Final meeting of working group was held 1/23/97. Working group provided consensus NPRM to RSAC at 3/24/97 meeting. RSAC voted to accept the NPRM and forward to the Administrator in voting concluded 4/14/97. NPRM published 6/26/97; comment period closed 8/25/97. <b>Final rule published 9/4/98 (63 FR 47182).</b>   |
| 96-4 | Tourist Railroads  | Open task to address needs of tourist and historic railroads; working group monitored steam task.   |
| 96-5 | Steam-Powered Locomotives,<br>revision of inspection<br>standards                    | Tourist & Historic Working Group met with task force representatives 9/3/97. NPRM was approved by full committee in voting that concluded 2/17/98. NPRM published 9/25/98 (63 FR 51404). Public hearing held 2/4/99. Task Force developed recommendations in response to comments received; Working Group consensus; approved by full Committee voting ballot 9/29/99. <b>Final rule published 11/17/99 (64 FR 62828).</b>  |
| 96-6 | Locomotive Engineer<br>Qualification and Certification,<br>general revision          | Task accepted 10/31/96; first working group meeting held 1/7-9/97. NPRM approved by full committee 5/14/98. NPRM published 9/22/98 (63 FR 50625). <b>Final rule published 11/8/99 (64 FR 60966).</b>  |

|                        |   |  |
|------------------------|---|--|
| 96-7                   | Roadway Maintenance Machines [Track Motor Vehicle and Roadway Worker Equipment] | Task accepted 10/31/96. As this Overview was being prepared, the NPRM was being finalized for circulation to the working group for concurrence together with the final rule amendment on GRMS.   |
| 96-8                   | Locomotive Crashworthiness and Working Conditions (planning task)               | Planning task accepted 10/31/96; planning group met 1/23/97; two task statements were accepted by the full Committee at 6/24/97 meeting [see 97-1, 97-2]. <b>Planning task is COMPLETED.</b>   |
| 97-1                   | Locomotive Crashworthiness  | Task accepted 6/24/97; working group held initial meeting 9/8-9/9/97. Established task force to review collision history and design options. Working group reviewed results of research, reached agreement regarding desired technical and performance standards, and is participating in the analysis of accident data necessary to determine if the proposal will be cost beneficial.        |
| 97-2                   | Locomotive Cab Working Conditions   | Task accepted 6/24/97; working group held initial meeting 9/10-11/97. Draft NPRM on sanitation has been circulated to working group for final concurrence. Full working group will address remaining noise exposure issues with a view toward preparation of an NPRM. FRA will request further consideration of exposure to extreme temperatures.  |
| 97-3                   | Event Recorders (data survivability, inspection, etc.)                          | Task accepted 6/24/97; working group first met 9/12/97. FRA is drafting full NPRM based on guidance from the working group and subject to its review.  |
| 97-4,<br>97-5,<br>97-6 | Positive Train Control  | Tasks accepted 9/30/97 and assigned to single working group. Standards Task Force is preparing NPRM for processor-based signal and train control systems. Data and Implementation Task Force completed report on the future of PTC systems; report accepted for forwarding to FRA by full Committee vote at 9/8/99 meeting. FRA enclosed report with letter Report to Congress signed 5/17/00. |

|      |   |  |
|------|---|--|
| 97-7 | Calculation of Damages for Reportable Train Accidents | Task accepted with modification 9/30/97. Working group has been formed. Initial meeting held 2/8/99. |
| 00-1 | Blue Signal Protection of Workmen                     | Task accepted 1/28/00; working group being formed.   |

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## SAFETY RULES AND REPORTS--GENERAL

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### Accident/Incident Reporting

**Summary:** The Rail Safety Enforcement and Review Act of 1992 barred FRA from adjusting the monetary threshold for reporting of train accident until the methodology was revised. In addition, FRA identified the need to comprehensively revise these regulations, which had not been revised since 1974.

**Deadline:** The report of the Committee of Conference on the Department of Transportation and Related Agencies Appropriation Act, 1996, directed FRA to issue a final rule in this proceeding by 6/1/96.

**History:** An NPRM was issued 8/19/94, followed by public hearings and written comment. A public regulatory conference was convened 1/30-2/3/95 in an effort to resolve outstanding issues. A notice of decision to issue a supplemental NPRM was published 7/3/95, but was withdrawn in a notice published on 1/24/96.

**Status:** Final rule was issued 5/30/96 and published 6/18/96 (61 FR 30940). Stay requests were denied, and technical amendments were published 11/22/96 (61 FR 59368). A notice of availability of custom software was also published 11/22/96 (61 FR 59485). On 12/16/96, the Administrator signed final rule amendments, which were published 12/23/96 (61 FR 67477). Final rule became effective 1/1/97. Industry training partnerships have been executed.

**Next steps:** FRA offered RSAC a task on 9/30/97 to review the definition of events required to be reported as train accidents, as requested by the Committee on 6/24/97. By request of the Committee, the task was limited to determination of damages qualifying an event as a reportable train accident. A working group has been formed and held its initial meeting 2/8/99. The working group is planning a pilot test of a new method for damage estimation.



## ***Blue Signal Protection***

**Summary:** On 8/16/93, FRA published a final rule permitting one or more utility employees to associate themselves with a train crew for the purpose of performing normal operating functions that require employees to go on, under or between rolling stock, without use of blue signal protection (which is ordinarily appropriate for mechanical duties). During the proceeding it was noted that rules for locomotive engineers working alone were not clearly defined. FRA published a final rule amendment governing single engineers working alone on 3/1/95, but granted a requested suspension of the amendment on 6/9/95 pending development of additional facts. Since that time, additional blue signal issues have continued to emerge, including application of the requirements to contractors performing the subject functions on railroad property.

**Status:** On 10/31/96, the RSAC advised FRA that this project should not be proposed for early tasking, given conflicting demands on the resources of member organizations. RSAC accepted task at the 1/28/00 full Committee meeting. Member organizations have nominated representatives for the working group, and FRA is finalizing the composition of the group.

## **Bridge Displacement Detection Systems (Report)**

**Summary:** The Federal Railroad Safety Authorization Act of 1994 required FRA to submit a report on systems to detect bridge displacement of the type that caused the derailment of the Sunset Limited at Mobile, Alabama, 9/22/93.

**Statutory deadline:** 5/2/96

**Status:** A technical evaluation report was published 6/23/94 and made available to the respective committees. A formal report was issued and forwarded to the Congress in March of 2000.

## **Control of Alcohol and Drug Use; Application of Random Testing and Other Requirements to Train Crews Based Outside the United States Who Engage in Train Operations in the United States**

**Summary:** FRA applies only part of its regulation on control of alcohol and drug use (49 CFR part 219) to a railroad's train operations in the United States that are performed by train crews whose home terminals are outside the United States ("extraterritorial train employees"). In this notice, FRA proposes to make all of part 219 applicable to extraterritorial train employees who perform train operations in the United States.

**Status:** FRA has prepared the NPRM for review and clearance.

## ***Event Recorder Next-Generation Performance Standards***

**Summary:** The National Transportation Safety Board has noted the loss of data from event recorders in several accidents due to fire, water and mechanical damage. In issuing final rules for event recorders which became effective 5/5/95, FRA noted the need to provide more refined technical standards. NTSB proposed performance standard for data survivability.

**Background:** Conducted an initial meeting of an informal working group comprised of AAR, RPI, and labor, and co-chaired by NTSB and FRA experts, on 12/7/95 to consider development of technical standards. At the RSAC meeting on 7/24-7/25/96, the AAR agreed to continue this inquiry, and on 11/1/96, AAR reported to the RSAC the status of work on proposed industry standards. On March 5, 1997, NTSB issued recommendations regarding testing and maintenance of event recorders as a result of finding in the investigation of the BNSF accident of 2/1/96 at Cajon Pass, California. On 3/24/97, the RSAC indicated its desire to receive a task to consider NTSB recommendations with respect to crash survivability, testing and maintenance.

**Status:** RSAC accepted task 6/24/97. Event Recorder working group first met 9/12/97. The working group has provided guidance for preparation of an NPRM, and FRA expects to circulate the draft for review of the working group over the next few months. (Task No. 97-3).

## **Florida Overland Express**

**Summary:** FRA received a petition for a rule of particular applicability for operations over a new high-speed railroad between Miami and Tampa via Orlando. The State of Florida had established a dedicated funding stream of \$70 million per year towards creation of this new private/public partnership.

**Status:** Received petition for rule of particular applicability 2/18/97. FRA issued NPRM 12/12/97 (62 FR 65478). Comment period closed. FRA reviewed comments received and held a public hearing on 11/23/98 to discuss a variety of issues. The State of Florida withdrew its support and funding for this project 1/99, suspending all activity on development.

## **Freight Car Safety Standards; Maintenance-of-Way Cars**

**Summary:** Cars not in compliance with the Freight Car Safety Standards may be operated at track speed in revenue trains if they are company-owned, stenciled cars. FRA published an NPRM 3/10/94 to close this loophole. FRA requested the Association of American Railroads to amplify its comments by letter of 12/20/94.

**Status:** AAR response received 8/4/95 is under review. FRA offered a task to the RSAC to resolve final rule issues on 9/30/97, but objection from the AAR prevented the matter from coming to a vote. FRA will prepare final rule.

### ***Locomotive Crashworthiness and Working Conditions***

**Summary:** The Rail Safety Enforcement and Review Act of 1992 required FRA to conduct a proceeding regarding locomotive crashworthiness and working conditions and to issue regulations or submit a report. Areas for consideration included structural means of preventing harm to crew members in collisions (collision posts, anticleimbers, etc.) and matters related to safety, health and productivity (e.g., noise, sanitation).

**Statutory deadline:** 3/2/95

**Background:** FRA conducted research, outreach, and a survey of locomotive conditions and finalized a report to the Congress transmitted by letter of September 18, 1996. The report conveyed data and information developed by FRA to date, closed out those areas of investigation for which further action is not warranted, and defined issues that should be pursued further in concert with the industry parties, either for voluntary or regulatory action. On 10/31/96, the RSAC accepted a preliminary planning task. The Locomotive Crew Safety Planning Group met 1/23/97, and subsequent consultations led to preparation of task statements.

**Status:** RSAC accepted two tasks 6/24/97. (RSAC Task 97-1, locomotive crashworthiness; and Task 97-2, locomotive cab working conditions).

**Locomotive Crashworthiness Working Group** met 9/8-9/97 and established a task force on engineering issues that has been active in reviewing collision history and design options. The Working Group has reviewed results of research and has prepared technical and performance standards for three types of locomotives. The group is currently participating in review of accident data that will be used to evaluate whether the proposed rule will be cost beneficial.

**Locomotive Cab Working Conditions Working Group** met for the first time 9/10-11/97 and established task forces on noise and temperature, which have been working actively. A draft sanitation NPRM has been circulated for final working group concurrence. The working group will be asked to reconvene this summer to complete work on a noise exposure standard and will also be asked to consider the issue of temperature extremes in the locomotive cab.

## ***Locomotive Engineer Certification; Miscellaneous Revisions***

**Summary:** The final rule for locomotive engineer certification became effective in 1991, but certain issues were left unresolved. Experience under the rule has raised additional issues. Examples of issues under review include the status of operators of specialized maintenance of way equipment and types of conduct for which decertification is appropriate.

**Status:** An interim final rule amendment dealing with agency practice and procedure concerning engineer certification appeals was published 10/12/95. Issues related to procedures on the properties, offenses warranting decertification, periods of decertification, operation of specialized equipment, etc., are pending. The RSAC accepted this task on 10/31/96. The Working Group's initial meeting was held 1/7-1/9/97. Final meeting to review proposed rule language was held 10/7-10/9/97, and task force on hearing and vision met 10/21/97 to finalize language. The full committee voted 5/14/98 to recommend issuance of the NPRM forwarded by the Working Group. The NPRM was published 9/22/98 (63 FR 50625) (RSAC Task 96-6.) The Working Group met to resolve issues presented in public comments, and on 1/28/99 the RSAC voted to transmit recommendations regarding issues for which the Working Group had received comments. **The final rule was published 11/8/99 (64 FR 60966); effective date 1/7/00.** (FRA Docket No. RSOR-9. Notice 12).

## **Northeast Corridor (NEC) Signal & Train Control**

**Summary:** Amtrak is planning operations to 150 mph on portions of the NEC and is implementing improvements to the automatic train control system that will provide positive stop and continuous speed control capabilities. FRA's Northeast Corridor Safety Committee (NCSC) met 9/20/94 and approved a set of performance criteria for the new system.

**Status:** On 1/30/97, Amtrak provided to FRA a draft system concept for the Advanced Civil Speed Enforcement System (ACSES), including conditions for operation on designated territories on the south and north ends of the NEC. Final details were received by FRA on 7/9/97. A notice of Proposed Order for the new signal and train control system authorizing speeds to 150 miles per hour (135 mph on the South End with only high-speed trains equipped under "flanking protection") was published 11/20/97 (62 FR 62097), and written comments were due by 12/22/97. As a result of requests, a public hearing was set for 2/17/98 (63 FR 3389), and the comment closing date was extended to 2/24/98. **Final Order of Particular Applicability published 7/22/98 (63 FR 39343); effective 8/21/98.**

## NEC System Safety

**Summary:** Mixed passenger and freight operations at speeds to 150 mph have not previously been attempted in this country. Through the Northeast Corridor Safety Committee (or a successor), FRA intends to review system safety planning by operators on the NEC, particularly with respect to interactions among the various services.

**Status:** Timing of project initiation to be determined. Will focus on enhancement and integration of individual railroad system safety plans to address complex NEC operations. At RSAC meeting of 1/28/00, concern was expressed over accepting this as a task. FRA is in consultation with NEC operators regarding this issue.

## *Passenger Equipment Safety Standards*

**Summary:** The Federal Railroad Safety Authorization Act of 1994 (enacted 11/2/94) required FRA to issue initial passenger safety standards within 3 years and complete standards within 5 years. The agency was authorized to consult with industry parties outside the Federal Advisory Committee Act, making it possible to conduct an informal negotiated rulemaking.

**Statutory deadline:** 11/2/97 (initial); 11/2/99 (final).

### **Status:**

**Phase I:** An initial meeting of the Passenger Equipment Safety Working Group (passenger railroads, operating employee organizations, mechanical employee organizations, and representatives of rail passengers) was held on 6/7/95, and the group met regularly to develop an NPRM. Manufacturer/supplier representatives served as associate members. FRA prepared an ANPRM indicating the issues under review by the working group, which was published 6/17/96 (61 FR 30672). The working group held its final meeting on the NPRM 9/30-10/2/96, having reached consensus on a portion of the issues presented. An NPRM was published 9/23/97 (62 FR 49728). The public hearing was held 11/21/97 (see 62 FR 55204; 10/23/97). Comments were due 11/24/97. Final working group meeting on the initial standards was held 12/15-12/16/97, and an additional meeting on intercity and high speed issues was held 1/6/98. **The final rule was published 5/12/99 (64 FR 25540).** (FRA Docket No. PCSS-1, Notice No. 5). FRA is finalizing responses to petitions for reconsideration.

**Phase II:** The first phase of this rulemaking activity, including the passenger emergency preparedness proceeding described below, resulted in comprehensive safety standards for passenger service. Phase II will address enhancements based on ongoing research, development of detailed standards by the American Public

Transportation Association Passenger Rail Equipment Safety Standards (PRESS) task force, and other identified needs. This phase will commence during 2000 but will be progressed through targeted rulemakings as research results and consultations mature.

### ***Passenger Train Emergency Preparedness***

**Summary:** The Federal Railroad Safety Authorization Act of 1994 required FRA to issue emergency preparedness standards for passenger service. Initial standards were required within 3 years and complete standards within 5 years. The agency was authorized to consult with industry parties outside the Federal Advisory Committee Act, making it possible to conduct an informal negotiated rulemaking.

**Statutory deadline:** 11/2/97 (initial); 11/2/99 (final)

**Background:** An initial meeting of the working group for passenger train emergency preparedness standards was held on 8/8/95. The group met 2/6-7/96 to develop elements of an NPRM and met jointly with the Passenger Equipment Safety Standards Working Group on 3/26/96 to consider related issues, including the implications of Emergency Order No. 20 and recommendations of the National Transportation Safety Board. The working group included representatives of passenger railroads, operating employee and dispatcher organizations, and rail passenger organizations, and an advisor from the National Transportation Safety Board. The working group approved draft rule text, which was incorporated in an NPRM forwarded for review and clearance. Changes requested during review and clearance were provided to the working group during the week of 12/16/96.

**Status:** The NPRM was published 2/24/97 (62 FR 8330), and a notice of public hearings was published 3/6/97 (62 FR 10248). Public hearings were held in Chicago on 4/4/97 and in New York City on 4/7/97. Written comments were due by 4/25/97. The working group met 8/28/97 and agreed in principle to revisions for inclusion in the final rule. **The final rule was published 5/4/98 (63 FR 24630), and a correction notice was published 7/6/98 (63 FR 36376).** (FRA Docket No. PTEP-1, Notice No. 3).

**NOTE:** The following order is closely associated with the two prior entries:

### **Emergency Order No. 20**

**Summary:** This order deals with the safety of push/pull and electric multiple unit service. The order was issued 2/20/96 (61 FR 6876; 2/22/96), and amended 2/29/96 (61 FR 8703; 3/5/96). Intercity and commuter passenger railroads were required to adopt operating rules providing for observance of reduced speed where delays are incurred in blocks between distant signals and signals at interlocking or controlled points. Marking of

emergency exits and testing of emergency windows was required. Interim system safety plans were required to be filed.

**Status:** The order has been fully implemented. On 3/26/96, the Passenger Equipment Safety Working Group and the Emergency Preparedness Working Group met jointly to consider implementation issues and crossover issues with the two rulemaking proceedings and recent recommendations of the National Transportation Safety Board. The American Public Transit Association and its members have undertaken a number of actions in response to the emergency order, including development of comprehensive system safety plans. Codification, revision or termination of provisions will be considered during the second phase of passenger safety standards rulemaking.

### ***Positive Train Control***

#### **Evaluation of needs and feasibility (implementation):**

**Summary:** These tasks involve defining PTC functionalities, describing available technologies, evaluating costs and benefit of potential systems, and considering implementation opportunities and challenges, including demonstration and deployment. (RSAC Tasks 97-4 and 97-5).

**Status:** Accepted by RSAC 9/30/97. Please see entry on RSAC summary.

#### **Performance standards for PTC systems:**

**Summary:** Existing signal and train control regulations are built around relay-based controllers and traditional track circuits, but technology is rapidly advancing. This task requires revising various regulations, including 49 CFR Part 236, to address the safety implications of processor-based signal and train control technologies, including communication-based operating systems. The purpose of the effort is to encourage deployment of innovative technology by providing a predictable environment. (RSAC Task 97-6).

**Status:** Accepted by RSAC 9/30/97. Please see entry on RSAC summary.

#### **Progress Report to the Congress:**

**Summary:** The Swift Rail Development Act of 1994 required FRA to submit a status report on the implementation of positive train control as a follow-up to the 7/94 Report entitled *Railroad Communications and Train Control*.

**Statutory deadline:** 12/31/95

**Status:** The Report was issued in letter format and forwarded to the Congress on 5/17/00. It enclosed the RSAC Report entitled *Implementation of Positive Train Control Systems* (approved 9/8/99).

## ***Power Brakes***

**Summary:** The Rail Safety Enforcement and Review Act of 1992 required FRA to revise the power brake regulations. The statute required adoption of requirements for 2-way end-of-train telemetry devices (EOTs) and "standards for dynamic brakes."

**Statutory deadlines:** Final rule by 12/31/93; 2-way EOTs to be used on trains operating greater than 30 miles per hour or in mountain grade territory to be equipped by 12/31/97.

**Status:** FRA published an NPRM 9/16/94 and conducted six days of public hearings ending 12/94. Due to strong objections to the NPRM, additional options were requested from passenger interests by 2/27/95 and from freight interests by 4/3/95. Further action is as follows:

- 1) ***Passenger standards revision:*** FRA requested the Passenger Equipment Safety Standards Working Group to incorporate new proposals for revisions of the power brake regulations in the NPRM for passenger equipment safety. Working group proceedings on the elements of the NPRM concluded 10/2/96 without full agreement on power brake elements. See Passenger Equipment Safety Standards for final rule action.
- 2) ***Freight standards revision:*** On 4/1/96, the RSAC accepted the task of preparing a second NPRM. The working group initiated its efforts in May, and on 10/31/96 the RSAC extended the deadline for a final report until 1/15/97. At the working group meeting 12/4/96, an impasse was declared, and subsequent efforts to revive discussions were not successful. On May 29, FRA notified the working group by letter that the task will be formally terminated. FRA withdrew task at 6/24/97 full Committee meeting. FRA prepared second NPRM reflective of what was learned through the collaborative process. NPRM published 9/9/98 (63 FR 48294) (FRA Docket No. PB-9, Notice No. 13). (RSAC Task 96-1--terminated). Public hearings were conducted on 10/26/98 and 11/13/98 and a technical conference was held on 11/23-24/98. Final date for submission of comments extended until 3/1/99. FRA has prepared the final rule, which is in review and clearance within the Executive Branch.
- 3) ***Two-way end-of-train devices:*** FRA published notice on 2/21/96 that this issue would be separated from the balance of the freight issues and expedited for completion of a final rule. A public regulatory conference was convened 3/5/96 to explore remaining issues, and written comments were due 4/15/96. (Railroads



also agreed to an expedited schedule that will ensure application of this technology by 12/15/96 on 2% or greater grades and by 7/1/97 for other trains.) The final rule was published 1/2/97 (62 FR 278), (FRA Docket No. PB-9, Notice No. 6), and it became effective 7/1/97. FRA received two petitions for reconsideration ("local train" definition and implementation date for smaller railroads). A notice denying the request to delete the tonnage restriction for local trains and granting extension of the compliance date for railroads with fewer than two million work hours was published 6/4/97 (62 FR 30461). On 11/4/97, held technical conference on petition of American Short Line Railroad Association regarding operation of very light trains over grade territory (see 62 FR 52370; 10/7/97); subsequently granted limited relief and received petition for reconsideration of conditions, which remains under review.

On 1/16/98, FRA published NPRM to clarify application of two-way EOT requirements to intercity passenger trains with express equipment at the rear (63 FR 195). **Final rule was issued 5/1/98 (63 FR 24130).** (FRA Docket No. PB-9, Notice No. 11).

**Note:** On 2/6/96, the Administrator issued Emergency Order No. 18, requiring use by the BNSF of 2-way EOTs or equivalent protection for heavy grade operations over the Cajon Pass (61 FR 505; 2/9/96).

### ***Railroad Communications (including Radio Standards and Procedures)***

**Summary:** In submitting the required report to the Congress on Railroad Communications and Train Control on 7/13/94, FRA noted the need to revise existing Federal standards for radio communications in concert with railroads and employee representatives.

**Status:** On 4/1/96, the RSAC accepted the task of preparing an NPRM, including consideration of communication capabilities required in railroad operations. The working group presented a consensus NPRM to the full Committee on 3/24/97, and the Committee voted to recommend issuance of the NPRM to the Administrator in balloting that ended 4/14/97. NPRM issued 6/11/97 and published 6/26/97 (62 FR 34544) (FRA Docket No. RSOR-12, Notice No. 4). Comment period closed 8/25/97. **Final rule published 9/4/98 (63 FR 47182).** (FRA Docket No. RSOR-12, Notice No. 5). (RSAC Task 96-3).

## **Regulatory Reinvention**

**Summary:** In response to the President's call for regulatory review, elimination and reinvention, FRA took several actions to repeal obsolete regulations and simplify agency processes that affect external customers. Major elements of this effort are included in regulatory revision efforts described under other headings.

**Status:** Interim final rule amendments reducing frequency of reporting regarding signal and train control systems (49 CFR Part 233), simplifying review requirements for certain modifications of signal systems (49 CFR Part 235), and making conforming changes regarding inspection of ATC/ATS/ACS (49 CFR Part 236) published 7/1/96 (61 FR 33871). These amendments are being prepared for publication. FRA is considering inclusion of a legislative proposal to permit flexibility for railroads to make accident/incident reports less frequently than monthly and to eliminate outdated requirements for notarization of reports in the Administration's proposed 1999 rail safety reauthorization legislation.

## ***Roadway Worker Safety***

**Summary:** In requiring the review of the Track Safety Standards, the Rail Safety Enforcement and Review Act of 1992 required FRA to evaluate the safety of maintenance of way employees. In addition, the Brotherhood of Maintenance of Way Employees and the Brotherhood of Railroad Signalmen petitioned FRA to issue "on-track safety" rules.

**Background:** FRA published a notice 8/17/94 initiating a formal negotiated rulemaking. The negotiated rulemaking committee reported a statement of principles 5/17/95 and completed an NPRM draft 8/95. NPRM published 3/14/96 (61 FR 10528); initial written comments were due 5/13/96. Public hearing held 7/11/96.

**Status:** The final rule was published 12/16/96 (61 FR 65959); effective 1/15/97. Petitions for reconsideration were denied in a notice published 4/21/97. A consolidated hearing on waiver petitions was held 5/22/97, and written comments were due by 6/9/97. FRA is issued decisions on individual petitions as investigations and analysis were completed.

## **Safety Integration Plans**

**Summary:** In response to the proposed acquisition of Conrail by Norfolk Southern and CSX Transportation, FRA has suggested, and the Surface Transportation Board has required, that the petitioners file with the Board of Safety Integration Plans (SIPs). In coordination with the Board, FRA proposed regulations requiring preparation and FRA review of SIPs in connection with future railroad mergers.

**Status:** FRA and the STB jointly issued an NPRM 12/31/98 (63 FR 72225) to institutionalize the SIP process to ensure that proper safety planning and safety investments are undertaken during a merger. The proposed rule spells out the types of transactions that will require SIPs and outlines the roles of FRA and the STB in overseeing the SIP process. FRA has reviewed the comments.

## **Small Railroads; Interim Policy Statement**

**Summary:** The Small Business Regulatory Enforcement Fairness Act of 1996 amended the Regulatory Flexibility Act and required, among other things, that each agency establish small business communication and enforcement programs.

**Statutory deadline:** 3/29/97

**Status:** Interim policy statement published 8/11/97 (62 FR 43024). FRA is reviewing comments received and developing a final policy statement. Public meeting to address definition of "small entity" was held on 9/28/99. FRA is preparing a final policy statement.

## ***Steam Locomotives***

**Summary:** A committee of steam locomotive experts from tourist and historic railroads has sought a partnership with FRA to revise the steam locomotive regulations. Proposed revisions would relieve regulatory burdens while updating and strengthening the technical requirements.

**Status:** Revision of the Steam Locomotive Inspection regulations was tasked to the RSAC on 7/24/96. A task force of the Tourist & Historic Railroads Working Group is actively working toward finalization of a final rule. NPRM rule text agreed upon within the task force was approved by the Tourist and Historic Working Group on 9/3/97 and provided to the RSAC on 9/30/97. The full RSAC approved the consensus NPRM by mail ballot 2/17/98. NPRM published 9/25/98 (63 FR 51404) (FRA Docket No. RSSL 98-1, Notice No. 1). (RSAC Task 96-5). Public hearing held 2/4/99. Task Force formulated recommendations in response to comments received. The recommendations were accepted by the working group and the full Committee voted to incorporate the recommendations in the final rule. **The final rule was published 11/17/99 (64 FR 62828) (FRA Docket No. RSSL 98-1, Notice No. 3); effective date 1/18/00.**

## ***Roadway Maintenance Machines [Track Motor Vehicle and Roadway Equipment Safety]***

**Summary:** A 1990 petition to FRA from the Brotherhood of Maintenance of Way Employees asked FRA, among other requests, to propose standards for MOW equipment related to the safety of persons riding or operating that equipment. FRA elected not to pursue that issue at that time given other pending workload. However, this issue was renewed during the deliberations of the RSAC Track Safety Standards Working Group.

**Status:** On 10/31/96, the RSAC accepted a task of drafting proposed rules for the safety of this equipment. A task force of the Track Safety Standards Working Group was formed to address this issue. The NPRM is expected to be circulated to the working group for concurrence together with the final rule amendment on the Gage Restraint Measurement System on 5/19/00. (RSAC Task 96-7).

## ***Tourist Railroad Report / Review of Regulatory Applicability***

**Summary:** The Swift Rail Development Act of 1994 required FRA to submit a report to the Congress regarding FRA's actions to recognize the unique factors associated with these generally small passenger operations that often utilize historic equipment.

**Statutory deadline:** 9/30/95

**Status:** Report submitted to the Congress 6/10/96. The RSAC authorized formation of a Tourist and Historic Railroads Working Group 4/1/96. The working group held its initial meeting 6/17-6/18/96 and has monitored completion of the steam task. (RSAC Task 96-4).

## ***Track Safety Standards***

**Summary:** The Rail Safety Enforcement and Review Act of 1992 required FRA to revise the Track Safety Standards, taking into consideration, among other things, the "excepted track" provision. Other prominent issues include updating the standards to take advantage of research findings for internal rail flaw detection and gage restraint measurement. FRA also proposes to adopt track standards for high-speed service.

**Statutory deadline:** Final rule by 9/1/95.

**Background:** FRA published an ANPRM 11/6/92 and conducted workshops in the period 1/93-3/93. The Railroad Safety Advisory Committee accepted task of preparing an (NPRM) on 4/2/96. The Track Safety Standards Working Group reported a draft

NPRM to the full committee on 10/31/96. In balloting that concluded 11/21/96, RSAC voted to accept the working group report and recommend issuance of the NPRM.

**Status:** NPRM signed 6/19/97 and published 7/3/97 (62 FR 36138) (FRA Docket No. RST-90-1, Notice No. 5). Hearing held 9/4/97; comment period closed 9/15/97. Additional comment was invited regarding certain high-speed track geometry issues by notice of 12/12/97 (62 FR 65401) not later than 12/22/97. **Final rule published 6/22/98 (63 FR 33991) (FRA Docket No. RST-90-1, Notice No. 8); effective 9/21/98.**

The final rule amendment on Gage Restraint Measurement System (GRMS) standards is expected to be circulated for working group concurrence on 5/19/00 together with the NPRM on Roadway Maintenance Equipment (RSAC Task 96-2).

## **U.S. Locational Requirement for Dispatching of U.S. Rail Operations**

**Summary:** New 49 CFR Part 241 would require all dispatching of railroad operation that occur in the United States to be performed in the United States, with exceptions for emergency situations and for the few limited track segments that were being dispatched from foreign countries as of December 1999.

**Status:** Drafting of the Interim Final Rule has been completed, and FRA has sent it for review.

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## **HIGHWAY-RAIL CROSSING SAFETY**

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### **Commercial Driver Disqualification - Railroad-Highway Grade Crossing Violation**

**Summary:** To enhance the safety of commercial motor vehicle (CMV) operations on our nation's highways and complete action initiated in response to the requirements specified in section 403 of the ICC Termination Act of 1995, the Federal Highway Administration (FHWA) revised its regulations (49 CFR Parts 383 and 384) to require that CMV drivers who are convicted of violating Federal, State, or local laws or regulations pertaining to railroad-highway grade crossings be disqualified from operating a CMV.

**Status:** Final rule published on 09/02/99 (64 FR 48104).

**Status:** NPRM published 1/13/00 (65 FR 2230) (Docket No. FRA-1999-6439, Notice No. 1). Written comments due 5/26/00. FRA held 12 public hearings and a technical conference to receive oral comments.

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## **HAZARDOUS MATERIALS**

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### ***New Directions for Rail Hazardous Materials Safety***

**Summary:** FRA and RSPA have recently completed the two major pending rulemakings addressing hazardous materials tank car safety (crashworthiness and tank retests). With completion of these tasks, it is now possible to turn attention to recommendations of the Transportation Research Board regarding the tank car design and construction process. In order to further this work, FRA is joining with its public and private sector partners to define and prioritize short and long-range research programs, identify needs for rulemaking, and assist in development of improved industry standards.

**Status:** A public workshop was conducted 2/13/96-2/14/96 in Houston, with participation by labor, railroads, tank car owners, and shippers. FRA is seeking means of advancing public/private partnerships for North American tank car safety.

### **Tank Car Crashworthiness and Retest**

**Summary:** Research and Special Program Administration Dockets HM-175A and HM-201 addressed further improvements in tank car crashworthiness, and adoption of advanced non-destructive testing to improve tank retest procedures, respectively.

**Status:** Final rules published 9/21/95 (60 FR 49048).

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## **OTHER SAFETY PROJECTS AND PARTNERSHIP EFFORTS**

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### **Bridge Structural Safety**

**Summary:** Following a survey of bridge conditions and railroad inspection practices, FRA determined that regulatory action is not necessary, but that FRA should continue to exercise an oversight role regarding bridge structural safety programs. FRA issued an interim statement of policy 4/27/95, with comments due 6/26/95.

**Status:** Comments support continued FRA partnership role. Final statement of policy is in review and clearance within the Executive Branch.

**Note:** On 2/12/96, the Administrator issued **Emergency Order No. 19**, which removed from service a bridge on the Tonawanda Island Railroad in New York State pending necessary structural repairs (61 FR 628; 2/16/96).

## **Discolored Wheels**

FRA has granted a master waiver of the Freight Car Safety Standards permitting continued use of discolored heat-treated, curved plate wheels, which have superior resistance to thermal abuse. Data gathered under the waiver, together with results of analysis already provided, may support a permanent change in the regulation.

## **Environmental Impacts**

FRA revised its Procedures for Considering Environmental Impacts to update or eliminate outdated references to programs or statutory authorities that no longer exist and to correct inconsistencies with the Council on Environmental Quality's National Environmental Policy Act implementing regulations. **The revised procedures were published in the Federal Register on 5/26/99 (64 FR 28545).**

## **Hours of Service Electronic Recordkeeping**

Current hours of service record keeping uses paper and ink, but a major railroad has been given relief to keep electronic records. Other railroads have expressed interest, and similar waivers will involve similar issues. At FRA's invitation, the AAR submitted a petition seeking a master waiver for use of electronic record keeping. However, individual railroads have elected to proceed separately, and FRA is processing each on its merits. Permanent amendments to the recordkeeping and reporting requirements may be proposed. FRA is assisting railroads in developing electronic systems by providing guidance materials.

## **Remote Control Locomotives**

Current regulations contemplate operation of a locomotive exclusively from within the cab, and provision for the safety of the operation is made within that context. FRA has previously proposed a test program to gather more data on various types of operations. FRA has also held an informal safety inquiry regarding use of one-person crews and remote control locomotives on the Wisconsin Central (see 61 FR 58736; 11/18/96). **On 5/15/00, FRA published a notice of technical conference to examine the current status of safety issues related to this technology (65 FR 31056).**

## **Shared Use of General Railroad System - Joint Statement of Agency Policy**

FRA and the Federal Transit Administration (FTA) have been working together to develop a policy concerning safety issues related to light rail transit operations on the general railroad system, how the two agencies intend to coordinate use of their respective safety authorities and the waiver process related to shared use operations. A proposed joint statement of policy was published 5/25/99 (64 FR 28238) with comments due on 7/30/99. Comment period extended on 7/28/99 to 10/29/99 (64 FR 40931). Additional extension on 10/28/99 to 1/14/00 (64 FR 58124) (FRA Docket No. FRA-1999-5685, Notice No. 3).

## **Shared Use of General Railroad System - FRA Jurisdiction Policy Statement**

FRA issued a proposed statement of agency policy on 11/1/99 (64 FR 59046) (FRA Docket No. FRA-1999-5685, Notice No. 4) describing the extent of its statutory jurisdiction over railroad passenger operations (which covers all railroads except urban rapid transit systems not connected to the general railroads system) and to explain how it will exercise that jurisdiction. Comments are due by 1/14/00.

## **TOFC/COFC Securement**

**Summary:** Following a serious accident at Smithfield, N.C., on 5/16/94, FRA formed a partnership with major railroads and labor organizations to evaluate and improve securement of intermodal loads. A report to the Secretary dated 9/15/94 documented the initial results of that effort.

**Status:** FRA held a meeting on 2/22/95 that focused on an item-by-item discussion of the status and progress made within the industry with respect to the seven recommendations identified in the report to the Secretary. The AAR has established an Intermodal Equipment Handling Task Force that has developed a number of training aids. A follow-up TOFC/COFC loading and securement safety survey was conducted during 1996. FRA conducted additional loading and securement field evaluations during July-August 1997. Joint training activity brought together railroads, TTX and FRA to maintain strong emphasis on compliance with AAR loading requirements. FRA continues to monitor securement of trailers and trucks in transportation and to work on this issue through SACP's on individual railroads.



## ***Train Dispatcher Training***

FRA submitted a report to the Congress on 1/5/95 regarding the functions of contemporary train dispatching offices. The report noted that traditional pools of candidates for recruitment of train dispatchers are no longer adequate to the need. In partnership with the American Train Dispatchers Department/BLE (ATDD), FRA identified the need for a model train dispatcher training program.

Experts from Amtrak, the ATDD, the Burlington Northern/Santa Fe Railroad and FRA developed a list of elements for dispatcher training programs. Required competencies and training program elements have been abstracted from this effort for a model program. The RSAC was briefed on this effort on 3/24/97, with participants in the training task force indicating reluctance to attempt a "one size fits all" regulatory approach.

## **Wisconsin Central R.R.; Informal Safety Inquiry**

**Summary:** FRA sought to gather information regarding plans by the railroad to expand use of one-person crews and remote control operations.

**Status:** A notice of special safety inquiry was published 11/18/96 (61 FR 58736). A public hearing was held 12/4-12/5/96 in Appleton, Wisconsin. Written submissions were requested by 12/2/96. FRA entered into an agreement with the railroad providing for a moratorium on new single person crew and remote control operations, together with other undertakings related to compliance with FRA regulations. The railroad has completed its responsibilities under the agreement.

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## **SAFETY ADVISORIES/DIRECTIVES/BULLETINS (FEDERAL REGISTER NOTICES)**

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### **Advisories**

- 2000-1 Model B1 relays.** This advisory asks railroads to inspect and test certain relays for which there is a concern regarding potential malfunction. **Published 5/11/00 (65 FR 30474).**
- 99-3 Securement of floor beam cross-members on RoadRailer trailers:** Safety practices to prevent the highway tandem wheel on RoadRailer trailers from falling onto the rails on moving trains. **Published 11/10/99 (64 FR 61377).**
- 99-2 [Not issued.]**
- 99-1 Lifting or jacking of railroad equipment:** Safety practices related to lifting or jacking of railroad equipment in order to remove trucks or repair other components on a piece of railroad equipment which requires individuals to work beneath railroad equipment while it is raised. **Published 6/16/99 (64 FR 32300).**
- 98-3 Safe Use of Prescription and Over-the-Counter Drugs:** Safety practices for the safe use of prescription and over-the-counter drugs by safety-sensitive railroad employees. **Published 12/24/99 (63 FR 71334)**
- 98-2 Emergency application of airbrakes:** Safety practices to reduce the risk of casualties caused by failure to activate the available two-way end-of-train telemetry device (two-way EOT) to initiate an emergency brake application beginning at the rear of the train when circumstances require an emergency application of the train airbrakes. **Published 6/5/98 (63 FR 30808).**
- 98-1 Vision standards of certified locomotive engineers:** Addresses the vision standards of certified locomotive engineers in order to reduce the risk of accidents arising from vision impaired engineers. **Published 5/28/98 (63 FR 29297).**
- 97-3 Authorization of train movements past stop indications of absolute signals:** Safety practices to reduce the risk of accidents arising from conflicting train movements when train dispatchers and control operators authorize movements past a stop indication of an absolute signal. **Published 9/18/97 (62 FR 49047).**
- 97-2 Failure to properly secure unattended rolling equipment:** Safety practices to reduce the risk of casualties from runaway locomotives, cars, and trains caused by failure to properly secure unattended rolling equipment left on sidings or other tracks. **Published 9/18/97 (62 FR 49046)**

- 97-1 Protection of trains and personnel from hazards caused by severe weather conditions:** Safety practices to reduce the risk of casualties from train derailments caused by damage to tracks, roadbed and bridges resulting from uncontrolled flows of water and similar weather-related phenomena. Note: This was amended on November 12, 1997, by revising the recommendations concerning the transmission of flash flood warning to train dispatchers or other employees controlling the movement of trains. **Published 9/4/97 (62 FR 46794).**

## **Directives**

- 97-1 Review of operational tests and inspection programs and review of train dispatching procedures in non-signaled territory:** Safety practices to evaluate the integrity of all railroads' programs of operational tests and inspections to ensure that safety-critical information is accurately conveyed and acknowledged for operations in non-signaled Direct Train Control (DTC) territory. **Published 6/30/97 (62 FR 35331).**

## **Bulletins**

- 97-2 Initiating emergency application of train airbrakes descending heavy grades:** Safety practice to prevent run-away trains on heavy grades of 2 percent or greater by initiating emergency application of airbrakes whenever train speed exceeds maximum authorized speed by five miles or more. **Published 2/27/97 (62 FR 9014).**
- 97-1 Loss of dynamic braking due to unintentional activation of emergency MU fuel-line cut-off device:** Safety practices for certain locomotives equipped with emergency MU fuel-line cut-off devices located inside the locomotive control compartment at a location which enables the cut-off device to be activated unintentionally. **Published 1/30/97 (62 FR 4569).**

**DEPARTMENT OF TRANSPORTATION**

**Federal Railroad Administration**

**Notice of Safety Advisory on RoadRailer Trailers**

**Agency:** Federal Railroad Administration (FRA), DOT.

**Action:** Notice of Safety Advisory.

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**SUMMARY:** FRA is issuing Safety Advisory 99-03A in order to modify and update previously issued Safety Advisory 99-03 which addressed the securement of floor beam cross-members on RoadRailer® trailers. See 64 FR 61377 (November 10, 1999). FRA is issuing this revised Safety Advisory to address the securement of lift rods on RoadRailer® trailers in order to prevent the highway tandem wheels on these trailers from falling to the rails on moving trains. This Safety Advisory also provides updated information regarding the actions being taken within the industry regarding the securement of floor beam cross-members and lift rods on this equipment.

**FOR FURTHER INFORMATION CONTACT:** Gary Fairbanks, Mechanical Engineer, Motive Power and Equipment Division, Office of Safety Assurance and Compliance, FRA, 400 Seventh Street, SW, RRS-14, Mail Stop 25, Washington, DC 20590 (Telephone 202-493-6322/ Fax 202-493-6230)

## **SUPPLEMENTARY INFORMATION:**

In November of 1999, FRA issued Safety Advisory 99-03 based on its discovery that several RoadRailer® trailers operated by Triple Crown Services (Triple Crown) had experienced failures of floor beam cross-members. See 64 FR 61377. The cross beams connect the highway tandem wheel set to the body of the trailer via slide rails. The failure of the cross beams allows the weight of the tandem wheel set to deflect the slide rails to the point where the highway tires contact the rail. Prior to the issuance of Safety Advisory 99-03, FRA notified Wabash National Incorporated (Wabash), the manufacturer of RoadRailer® equipment, and requested that Wabash randomly inspect trailers at the Fort Wayne, Indiana, Triple Crown facility. Representatives of Wabash, Triple Crown, the Federal Highway Administration (FHWA), and FRA conducted a series of inspections at this facility in October of 1999. The cross-member defects found during these inspections could be classified into four categories:

1. A weld crack at the slide rail to I-beam cross-member;
2. A crack in the cross-member I-beam flange (which usually starts at the end of a weld);
3. A crack which has progressed into the web of the I-beam from the flange;  
or
4. A cross-member broken into two pieces.

The practice of attaching the tandem wheel set slide rails to the trailer body by welding to floor cross-member I-beam flanges has been the accepted method of highway trailer fabrication for many years. This method is currently being used by nearly all van

trailer manufacturers, and is considered safe and reliable when properly applied. It should be noted that there are some RoadRailer® trailers which have been in service since January 1988 that have not exhibited signs of weld or cross-member cracking in the above noted areas. Currently, the entire fleet of Triple Crown RoadRailer® trailers is in the process of being inspected or repaired. All inbound and outbound trailers are being inspected. Defective trailers will be withheld from service, transloaded, or repaired prior to being assembled into a train, depending upon the condition of the trailer. At this time, the manufacturer is considering one broken floor beam cross-member or four successive cross-members with cracks to be sufficient cause to withhold the trailer from service or to repair the trailer prior to continuing it in service.

Subsequent to the issuance of Safety Advisory 99-03, FRA discovered that several RoadRailer® trailers operated by Triple Crown Services (Triple Crown) and the National Railroad Passenger Corporation (Amtrak) have recently experienced failure of the tandem axle lift rods. These spring loaded lift rods retract the highway wheel set when the trailers are operated in the rail mode. Direct inspection of the lift rods is not possible by personnel positioned on the ground and standing adjacent to the trailer because the lift rods are encased in a steel tube and are located above the highway tandem axles at the rear of the trailer near the centerline of the trailer body. A broken lift rod will result in the highway tandem wheel set lowering toward the rail. Furthermore, if one or more of the lift rods fail per trailer the highway wheel set could potentially strike a close clearance object or the highway wheel set could drop completely to the rail. Thus, a high potential for derailment exists if a highway wheel set were to drop onto the rails.

An informal inquiry into the potential causes for the recent failures of the tandem axle lift rods determined that recently manufactured lift rods were not properly heat treated when manufactured and thus, may not be of adequate strength to handle the high loads encountered during the operation of the equipment. Due to the safety implications related to the failure of the lift rods, the National Highway Traffic Safety Administration (NHTSA) in conjunction with Wabash has issued a voluntary recall of equipment outfitted with tandem axle lift rods manufactured within the last two years. See NHTSA Recall Number 00V-025 and 00V-344. Wabash will also provide NHTSA and FRA with quarterly progress reports on the status of the recall. Furthermore, Wabash has issued six "Service Bulletins" regarding the inspection and repair of the RoadRailer® trailers in response to the recent lift rod failures and the failures of the floor beam cross-members discussed in Safety Advisory 99-03. These bulletins include:

- SB2000-001: RoadRailer® cross-members at front of slide reinforcement to prevent cracking; Priority - Mandatory (part of NHTSA Recall Number 00V-025 and 00V-344). This bulletin covers the inspection and installation of a bolt-on reinforcement channel that will increase the strength of the cross-member and reduce the stress at the welds. A three-inch diameter blue decal will be applied to the front of each trailer just above the Vehicle Identification Number (VIN) tag to indicate the rework has been completed.
- SB2000-002: RoadRailer® slide suspension body rail rear attachment reinforcement; Priority - Voluntary (at customer expense). This bulletin covers the modification of the aft end of the suspension body rails on standard dry

freight RoadRailer® trailers. This reinforcement modification to the rear stop pipe will reduce the potential of the weld cracking.

- SB200-003: RoadRailer® slide suspension hold-down replacement and repair of cracks between lock pin holes in slide body rails; Priority - Mandatory (Warranty). This bulletin covers the replacement of the 3/8" thick trailer slide body rail suspension hold down brackets with 1/4" brackets that have more clearance for the bottom lip of the body rail. The 3/8" bracket caused stresses in the body rails and resulted in cracking between pairs of holes in the body rail.
- SB2000-004: RoadRailer® Lift Rod Replacement due to improper material; Priority - Mandatory (Warranty). This bulletin covers the replacement of trailer suspension lift rods that did not have the steel properly heat treated, and, therefore, may not be of adequate strength for the application. These lift rods can see high loads during the transfer and rail modes that require the material used in the lift rods to be of high strength heat treated steel.
- SB2000-005: RoadRailer® cross-member inspection; Priority - Recommended. This bulletin covers the procedures for the inspection of cross-members and the repair of the cross-members over the body rails during regular trailer inspections.
- SB2000-006: RoadRailer® Ultra Cube slide suspension body rail rear attachment reinforcement; Priority - Voluntary (at customer expense). This bulletin covers the reinforcement procedures for the aft end of the suspension body rails on Ultra Cube trailers. Severe impact of the slider suspension into the rear stop pipe can force the body rail to bow upwards causing the bottom of the vertical leg of the



body rail of the extension to crack.

**Recommended Action:**

Until the root cause(s) of the floor beam cross-member failures and the lift rod failures can be determined, and the appropriate long-term repairs effectuated, FRA recommends that the following actions be taken with regard to all RoadRailer® trailers:

- Each trailer should be inspected upon receipt at a facility from a highway motor carrier prior to being transferred to the rail mode to determine whether it has any of the following conditions:

1. One broken floor beam cross-member.
2. Four successive cross-member with cracks.

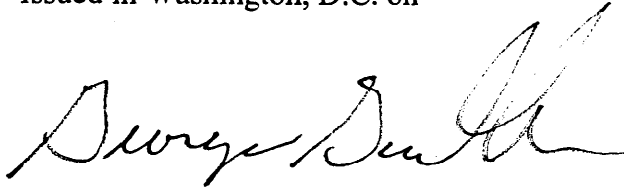
If either of the conditions is found, the trailer should be held until a repair can be made to correct the deficiency, or if loaded, the lading should be transferred to another trailer that has been inspected and found not to have any of these conditions.

- Each such inbound trailer should be inspected upon its arrival in a train prior to its transfer to the highway mode. If either of the conditions noted above is found, the trailer should be held until a repair can be made to correct the deficiency, or if loaded, the lading should be transferred to another trailer that has been inspected and found not to have any of these conditions.
- All operators of RoadRailer® trailers should obtain a copy of the above listed "Service Bulletins" and should follow all of the manufacturer's recommended

inspection, repair, and modification procedures contained in those bulletins. To obtain a copy of the bulletins, operators should contact Mr. John Gabriel, Customer Service, Wabash National Corporation, P.O. Box 6129 Lafayette, IN 47903 or telephone (765) 771-5404.

FRA may modify Safety Advisory 99-03A, issue additional safety advisories, or take other appropriate action to ensure the highest level of safety on the Nation's railroads.

Issued in Washington, D.C. on MAY 18 2000

A handwritten signature in dark ink, appearing to read "George Gavalla", with a stylized flourish at the end.

George Gavalla  
Associate Administrator  
for Safety

## **Summary of Draft Sanitation Standard**

### **General Principles**

- Each lead locomotive in use must be equipped with a private, ventilated sanitation compartment that includes a sanitary, operative toilet facility; washing and toilet paper supplies; and a trash receptacle
- Any locomotive equipped with a toilet facility as of the effective date of the rule must retain that facility, unless the locomotive is downgraded to a 'slug' that would never be occupied
- Any locomotive manufactured after the effective date of the rule must be equipped with a sanitation compartment that is accessible from the cab, unless the unit is designed exclusively for commuter or switching service

### **Exceptions for Certain Uses and Facilities**

- The lead locomotive in use may not be equipped with a sanitation compartment if it is used in switching, commuter, transfer train, or tourist service, or is owned by a Class III railroad and cab employees are provided ready access to sanitation facilities that meet the requirements of the rule
- Locomotives of a Class I carrier equipped with a 'bogan' type toilet may remain in use until they become defective or are replaced with conforming units, whichever occurs first
- Locomotives of a Class I carrier equipped with a 'dry hopper' system may remain in use until they are replaced, which must occur by July 1, 2003

### **Servicing**

- As of the daily inspection, the toilet facility must be operative and sanitary, and the ventilation must be operative if to be used in the lead position
- Nonconforming units may be used in trailing position, or in switching or transfer train service; however, if used switching or transfer train service, the units must be repaired within 10 days; all occupied units must be sanitary

Federal Railroad Administration  
Railroad Safety Advisory Committee  
May 19, 2000



Training and Qualification  
Of Safety-Sensitive Employees



Training and Qualification

| Training   | Qualification   | Certification   |
|--|---|---|
| <ul style="list-style-type: none"> <li>➤ KSAs</li> <li>➤ Structured curriculum</li> <li>➤ Methods appropriate to subject matter</li> </ul> | <ul style="list-style-type: none"> <li>➤ Training <i>plus...</i></li> <li>➤ Objective measures of achievement</li> <li>➤ Documentation</li> </ul> | <ul style="list-style-type: none"> <li>➤ Training and Qualification <i>plus...</i></li> <li>➤ Federal recognition &amp; sanction</li> <li>➤ Performance, fitness &amp; conduct</li> </ul> |



Training and Qualification

Persons affected:

- Employees
- Railroad contractors
- Others?

Impetus for change:

- Statutes (locomotive engineers)
- NTSB recommendations (19 since 1971)
- Safety needs as identified by FRA, others



Training and Qualification

General disqualification of individuals from safety-sensitive functions (Part 209, Subpart D):

- Persons include all subject to Hours of Service plus those who inspect, repair or maintain track and "roadbed," locomotives, or cars
- Employees and contractors, including supervisors of subject employees
- Disqualification applies as to safety-sensitive work for any railroad.



Training and Qualification

General disqualification (cont'd):

- Basis for disqualification =
  - Violation of safety law or regulation
  - Showing that the individual is unfit to perform safety-sensitive functions in the railroad industry
  - Willful violation of certain regulations establishes a rebuttable presumption of unfitness
  - But violation need not be willful to warrant disqualification



Training and Qualification

**Locomotive Engineers (Full Certification)**

- Training & qualification program required by regulation
- Applies to contractors, as well as direct employees
- Medical standards for fitness (vision, hearing, no active substance abuse disorder)
- Certificate issued by railroad under FRA rule
- Cardinal rule violations
- NDR



### Training and Qualification

#### Locomotive Engineers (cont'd)

- Required check rides
- Due process for certificate actions
- FRA review (LERB, Hearing Officer, Administrator)
- Access to Federal courts
- Parallels but does not replace RLA sec. 3 proceedings
- Based on specific statutory mandate



### Training and Qualification

#### Locomotive Engineers (cont'd):

- Other requirements include...
  - Operating rules (Part 217)
  - Hazardous materials (Part 172, Subpart H)
  - Railroad communications (sec. 220.25)



### Training and Qualification

#### Overview/Other Safety-Sensitive Persons:

- Mix of Federal and railroad requirements
- Industry training programs often include collectively bargained component, mix safety and other objectives
- Following summary *includes* function-specific components and general components (e.g., operating rules, hazardous materials) *but not* OSHA/DOL



### Training and Qualification

#### Other Safety-Sensitive Persons (\*H/S):

- Train service\*
- Dispatchers\*
- Signal and train control\*
- Locomotive shop crafts
- Car shop crafts
- MOW / bridge inspectors, other key personnel



### Training and Qualification

#### Train Service (including yard brakemen, etc.):

- Current training:
  - Operating rules (Part 217)
  - Railroad Communications (sec. 220.25)
  - Passenger Emergency Preparedness; Passenger Equipment Safety (e.g., brakes) (Parts 238, 239)
  - Hazardous materials (Part 172, Subpart H)
  - Carrier-specific training and qualification programs



### Training and Qualification

#### Train Service (cont'd):

- Proposed training and qualification:
  - Freight Power Brakes (final rule pending)
  - PTC standards (RSAC Working Group draft)
- Possible enhancements—
  - Crew resource management (NTSB R99-13, Butler, IN)
  - Conductors / minimum experience (?) (UTU)
  - Alcohol/drug rules, awareness



### Training and Qualification

#### Dispatchers:

##### ➤ Current training:

- Operating rules (Part 217)
- Railroad Communications (sec. 220.25)
- Carrier-specific training and qualification programs (some ad hoc, others well structured)
- Passenger Train Emergency Preparedness (sec. 239.101)
- Hazardous materials (Part 172, Subpart H)



### Training and Qualification

#### Dispatchers (cont'd):

##### ➤ Proposed training and qualification:

- PTC standards

##### ➤ Possible enhancements:

- Prompted by NTSB R87-66 (Fall River, WI) and R98-28 (Devine, TX), FRA Report to Congress (1995)
- Minimum elements for training curriculum (Amtrak, ATDD, BNSF, FRA team)



### Training and Qualification

#### Dispatchers (cont'd):

- Enhanced instructional methods (see Foster-Miller 1998)
  - Explicit requirements for qualification on territory
  - Explicit requirements for CAD proficiency
- Other issues:
- Alcohol/drug rules, awareness



### Training and Qualification

#### Signal and Train Control:

##### ➤ Current training:

- Operating rules (as relevant to on-track movements) (Part 217)
- Roadway Worker Safety (Part 214)
- Railroad Communications (sec. 220.25)
- Carrier-specific training and qualification programs



### Training and Qualification

#### Signal and Train Control (cont'd):

##### ➤ Proposed training and qualification:

- "PTC standards" (for all new processor-based signal and train control systems)



### Training and Qualification

#### Signal and Train Control (cont'd):

##### ➤ Possible enhancements:

- Formal training & qualification requirements for existing Part 236 and 234 regulated functions (including contractors to small railroads)
- New technology "gap" training (e.g., ITCS)
- Alcohol/drug rules, awareness



### Training and Qualification

#### Locomotive shop crafts:

##### ➤ Current training:

- Operating rules as applicable (blue signals, etc.) (Part 218)
- Passenger Equipment Safety Standards (Part 238)
- Carrier-specific training and qualification programs



### Training and Qualification

#### Locomotive shop crafts:

##### ➤ Proposed training and qualification:

- Freight Power Brakes

##### ➤ Possible enhancements:

- Formal regulation-based locomotive inspection training & qualification (preferably in conjunction with revision of Part 229)
- Steam locomotive qualification program (NTSB R96-55, 58)



### Training and Qualification

#### Car shop crafts:

##### ➤ Current training:

- Operating rules, as applicable, including blue signals (Part 217)
- Carrier-specific training and qualification programs

##### ➤ Proposed training and qualification:

- Freight Power Brakes



### Training and Qualification

#### Car shop crafts:

##### ➤ Possible enhancements:

- More specific training in Freight Car Safety Standard requirements (Part 215) to support concept of "qualified" inspector?
- TOFC/COFC securement (NTSB R95-21, Smithfield, NC)



### Training and Qualification

#### MOW / Bridge:

##### ➤ Current training:

- Operating rules, as applicable (Part 217)
- Hazardous materials (Part 172)
- Bridge Worker Safety (Part 214, Subpart B)
- Track Safety Standards (sec. 213.7)
- Railroad Communications (sec. 220.25)
- Carrier-specific training and qualification programs



### Training and Qualification

#### MOW / Bridge (cont'd):

##### ➤ Proposed training and qualification:

- PTC standards (non-interference with normal functioning of new train control system)

##### ➤ Possible enhancements:

- Extend proposed non-interference training to all supervisors and lone MOW workers in contact with existing and proposed signal and train control systems, include grade crossing signals



### Training and Qualification

Training initiatives in one or more SACP:

- New conductor training program
- Train air brake and safety appliance inspection (train crews and mechanical employees in separate SACP)
- Mentoring program for new signal maintainers
- Machine operator qualification process



### Training and Qualification

More SACP initiatives:

- Track inspector field qualification procedure
- Locomotive mover training program
- Special training for distributive (?) power, cab signal equipment, event recorders



### Training and Qualification

Where do we go from here? Options—

- Add training and qualification requirements as revise rules (underway, e.g., passenger equipment )
- Use SACP to help fill gaps on individual railroads
- Establish a planning group within RSAC to act as a steering committee, proposing tasks for RSAC as needed for safety, based on information developed by the planning group



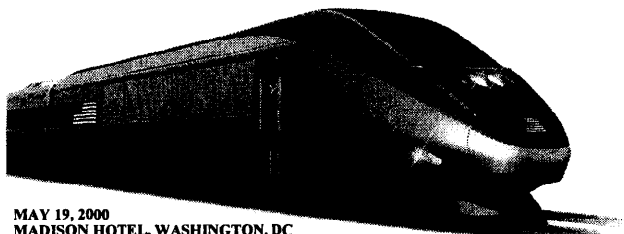
## PTC STANDARDS TASK FORCE RSAC PROGRESS REPORT



MANUEL GALDO  
FRA OFFICE OF SAFETY



DAVID MATSUDA  
FRA OFFICE OF CHIEF COUNSEL



MAY 19, 2000  
MADISON HOTEL, WASHINGTON, DC

## REVIEW OF TASK FORCE ACTIVITIES

- Origin of the PTC Standards Task Force
- November 1997-Ponte Vedra Beach, FL
- December 1997 -Washington, DC
- February 1998 -Fort Worth, TX (first formal meeting)
- December 1999 -Ponte Vedra Beach, FL (most recent meeting)



PTC STANDARDS TASK FORCE - RSAC PROGRESS REPORT  
MAY 19, 2000, MADISON HOTEL, WASHINGTON, DC

## MISSION

- CODE OF FEDERAL REGULATIONS (CFR) PART 236, SUBPART H "SAFETY OF PROCESSOR-BASED SIGNAL AND TRAIN CONTROL SYSTEMS"
- MASTER DRAFT
- STAKEHOLDERS
  - Railroad Management
  - Railroad Labor
  - FRA/Government
  - Signal/Train Control System Manufacturers (Non-voting)



## RECENT ISSUES - DEC. 1999

- Risk metric
- Products to be covered by subpart H
- Criteria for requiring third party assessment
- Recordkeeping requirements



## RECENT EVENTS

- Distributed and received comments on draft rule text
- Discussed comments with parties submitting them



## FUTURE BUSINESS

- Come to consensus on full draft NPRM (preamble and rule text)
- Present to PTC Working Group for consensus vote
- RSAC consensus vote
- Obtain clearance to publish in Federal Register



## DRAFT NOTICE OF PROPOSED RULEMAKING (NPRM)

1. APPLICATION OF THE RULE
2. RAILROAD SAFETY PROGRAM PLAN (RSPP)
3. CONFIGURATION MANAGEMENT
4. PERFORMANCE STANDARD
5. PRODUCT SAFETY PLAN (PSP)
6. FRA OVERSIGHT
7. IMPLEMENTATION & OPERATION



## 1. APPLICATION OF THE RULE

- Product = Processor-based signal or train control system, subsystem, or component.
- Existing processor-based systems - Grandfathered.
- Products which interface with highway-rail grade crossing systems-Part 234 amended.



PTC STANDARDS TASK FORCE - RSAC PROGRESS REPORT  
MAY 19, 2000, MADISON HOTEL, WASHINGTON, DC

## 2. RSPP

- Guidance document - establishes minimum requirements for development of all products on railroad.
- Must be approved by FRA.



## 3. CONFIGURATION MANAGEMENT

- Railroads must adopt configuration management control plan.
- Ensures proper configuration of systems are maintained.



## 4a. PERFORMANCE STANDARD

- Railroad operation using new products can be no less safe than old railroad operation.



## 4b. PERFORMANCE STANDARD

- How to show compliance?
  - Risk assessment.
  - For simple component replacement, risk assessment reduces to Mean Time to Hazardous Event (MTTHE) comparison.



## 5. PSP

- Describes safety aspects of product. If product varies from proven design principles, then PSP explains how safety requirements are met using new design.
- Includes risk assessment.
- Includes plans for training of employees and recordkeeping.



## 6a. FRA OVERSIGHT

- 2 tracks- petition and informational filing. Petitions required for PSPs involving full-fledged PTC systems. Informational filing required for all others.
- FRA will publish notice in Federal Register periodically to inform interested parties of filings and petitions.
- Under certain circumstances, FRA may require an independent third party assessment.



PTC STANDARDS TASK FORCE - RSAC PROGRESS REPORT  
MAY 19, 2000, MADISON HOTEL, WASHINGTON, DC

## 6b. FRA OVERSIGHT

### PETITION FOR FINAL APPROVAL

- FRA review and approval time proportional to timing of Notice of Product Development (not required). Earlier notice is better.
- Petition must include PSP.



## 6c. FRA OVERSIGHT

### INFORMATIONAL FILING

- Informational filings: if no objections by FRA (for cause), railroad can implement product 180 days after filing.
- Filing need not contain entire PSP, but rather description and actual location of it.



## 7. IMPLEMENTATION & OPERATION

- Operation governed by PSP.
- Training required for all employees who work with product (including those whose safety depends on it).
- Recordkeeping - Installation, repair, modification, testing, inspection, and maintenance records to be kept; safety-relevant hazards tracked.



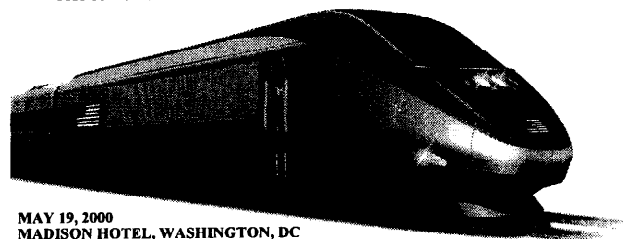
## PTC STANDARDS TASK FORCE RSAC PROGRESS REPORT



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MAY 19, 2000  
MADISON HOTEL, WASHINGTON, DC